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ISBN 0-315-55339-1

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THE UNIVERSITY OF ALBERTA

HOW GIFTED ADOLESCENTS RESOLVE PRACTICAL AND HYPOTHETICAL MORAL DILEMMAS

BY

JEANNETTE D. LUCAS ©

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

DEPARTMENT OF SECONDARY EDUCATION

EDMONTON, ALBERTA

(FALL) (1989)

THE UNIVERSITY OF ALBERTA

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DEGREE: Master of Education

YEAR OF DEGREE: 1989

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled How Gifted Adolescents Resolve Practical and Hypothetical Moral Dilemmas, submitted by Jeannette D. Lucas in partial fulfillment of the requirements for the degree of Master of Education.

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Date: August 28, 1989

ABSTRACT

Data from 50 gifted adolescents from two junior high schools was used to compare their ability to resolve peer-oriented moral dilemmas with their ability to resolve Kohlbergian hypothetical moral dilemmas. The subjects were arranged in five groups; one grade 7, two grade 8, and two grade 9 groups. There were 22 female and 28 male volunteer subjects. Participation was voluntary from those available in the school-board designated academically gifted students attending each of the two schools. Base data was collected using the Sociomoral Reflection Measure (SRM) instrument found in: John Gibbs and Keith Widaman (1982), Social Intelligence: Measuring the Development of Sociomoral Reflection (Englewood Cliffs, N.J. : Prentice-Hall, Inc.). This is a paper and pencil, group administrable test consisting of two moral problems eliciting responses on eight norms. This SRM was derived from Kohlberg's Moral Judgment Interview and is similar in format, dilemma type, development and variation. The SRM provides rater training and a protocol rating manual within the above title. For measuring peer-oriented dilemma resolution, an experimental researcher-designed form was developed. The design followed the SRM format very closely. Peers were used as the protagonists in the dilemmas but the moral issues remained unchanged, the norms responded to in each instrument were the same.

The results of the study indicate that gifted adolescents can resolve peer-oriented dilemmas at least as well as Kohlbergian

hypothetical dilemmas. Some subjects exhibited slightly higher (1/3 global stage) Sociomoral Reflection on peer-oriented dilemmas. Correlation between the scores attained on the SRM and the peer-oriented data are as follows: .55, .84, .70, .84, .71. All are considered significant correlations. Also, the significance level of probability was set at .05 and the probability of these results occurring was calculated as: .002, .004, .017, .018, .027. For this sample of gifted adolescents there is a close relationship between hypothetical and peer-oriented dilemma resolution.

ACKNOWLEDGEMENT

I wish to express my appreciation to my advisor, Dr. L. Beauchamp, associate chairman of the Department of Secondary Education, for his support, patience, and direction throughout. His task was particularly difficult many times.

To the students who assisted in this research, without whom this would not have been possible, I owe my greatest appreciation. Appreciation also goes to the teachers at each school who accommodated the research time and served as advisors and resource persons. The anonymity of the data source prevents identification of all these essential and much appreciated individuals; thank you everyone.

Appreciation also goes to John Gibbs and Keith Widaman, authors of the research tool used without which this study could not have been completed. Permission for use from the publishers, Prentice-Hall, was necessary and is much appreciated.

A mention of very personal appreciation to my girls who have been very patient, understanding, and helpful throughout the lengthy process of study, research and writing. Your persistent support gave me reason.

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CHAPTER ONE

Introduction

I have always been intrigued by the way some individuals treat others kindly and with respect while other individuals seem to have a need for the 'eye for an eye' morality: "You've insulted me...now my 'self esteem' must insult you..." I have been astounded at the extent of demeaning and cruel behavior some individuals can exact upon others, with relish or indifference. The greatest puzzle is that there seems so little predictability of who these people are; they appear in all walks of life and in some classrooms. Having acquired knowledge, social or economic position is not assurance that such an individual will function as a moral being, granting all persons respect and dignity.

My interest in how people are - morally - stems from everyday observations. I once heard it said that the world would never fully be civilized, as becoming civilized means becoming kind and just. People, wherever they group may not yet all be kind and just. That may be true, but I would like to know why. Why cannot every one be kind and just? There are individual differences in society, people aredifferent, and people are different morally also, but that should not preclude trying to arm each individual with the ability to reason at the highest possible moral level. Individuals must ultimately choose to be moral toward others, but there must be material for choice, they must have an awareness of higher(est) moral considerations and reasoning. It may be possible for every individual to reach higher(est) moral thinking or development, regardless of individual ability, traits, or handicap. Unless conscious concerted efforts are consistently made, unjust preclusions exert a powerful force, negatively, in their own right. Communication (and non communication) can be effective or destructive. Educators choose the way of communicating the morality of interactive behavior.

The focus of my interest is in determining whether we can learn something from individuals who have found a moral growth method. A first step is to study one segment of school population particularly at the peak years of change in moral thinking. That this study is of gifted students does not exclude other academic levels from study. In fact, observations of low academic achievers would indicate a similar study is warranted also. It is not unusual, I have noticed, for academically handicapped students to be extraordinarily kind, even in unjust situations.

Background

Through time there has been interest in the question of morals: what is moral, how is one moral, and how is morality attained? Philosophers have considered what it is to be moral in the course of contemplating the pursuit of human potential. They have developed quite different ideas, such as Kan't (see McPhail, 1982) justice, Mill's (1957) utilitarianism, or Sartre's (1956) existentialism, of what being moral means. But beyond differences of how one becomes moral, there would be little disagreement that the world would be a better place if people treated others equitably and justly, and with respect and dignity. Indeed, this would not likely be disagreeable to ordinary citizens regardless of their culture or understanding of the concept of morality.

In more modern history there has been some interest and study in the area of moral growth by developmental psychologists. Piaget's work in the 1940s related the concept of developmental learning to moral growth. Lawrence Kohlberg continued the study of moral development from the late 1950s to the present. However, schools were not consciously involved in moral education during that time. In the 1970s, interest grew and curriculum changes incorporated values for discussion into at least the social studies curriculum of Alberta schools. In the United States, public opinion gathered through annual surveys, indicated a need for schools to become more consciously involved in moral education (Reimer et al., 1983). Possible reasons for this growing public opinion is a perceived lack of moral leadership in the conduct of the nation's business (Vietnam, Watergate), unrest in civil rights, and racial issues at home.

Morality is a component of daily life. It is involved whenever there are decisions made, and interpersonal relationships. Morality is a component of school in administration, teaching, and interpersonal relations, and it is an inherent aspect of all subject matter studied. Yet, the importance of the moral issues underlying subject matter is seldom made clear, and often not dealt with (Reimer et al., 1983; Sizer, 1970).

Sizer (1970) notes Kohlberg's claim "...that justice cannot be taught in unjust schools" (p. 7). Sizer (1970) comments on some of the many duties carried out by teachers and states, "Morality is put to the test every day in schools, and we teachers are often found wanting in it. While we doubt the value in giving grades, they're there anyway, often to the terror of the young" (p. 9). But, one could ask, is the situation any different today, nearly twenty years later? Are teachers now more likely to correct injustice in the school wherever it appears?

While the aim of education has not really changed over time, it is uncertain whether that aim is being met. T.W. Moore (1982) says, "...the aim of education ... is to produce an educated man, one who meets the various criteria of intellectual, moral and aesthetic development" (p. 28). Moore also discussed the 'subordinant aims' of education and lists subject awareness of science, math, and literature as some of these. It is these areas that receive the most attention in schools. Of course, knowledge on a broad range of subjects is necessary for making an informed moral choice but this alone is not sufficient. Something else has to be applied. Cognitive knowledge alone cannot increase moral reasoning ability. Cognitive knowledge has no morality.

With respect to the mandate education has for the task of attending to the moral development of students (at least in the

United States), McPhail (1982) stated, "The successful investigation of how we learn to treat others well is the sine qua non of moral understanding and moral education because without it we do not know how to create and support the conditions in which moral learning takes place "(p. 80). Nevertheless, it is possible that some teachers may be uncomfortable with this role. However, a fear teachers may have of inculcating values eases if the moral principle of justice is observed in a classroom. This is true of (the moral aspects of) all school interaction, discussion, and administration of duties. Moral education cannot be viewed as diminuition of the rights of individuals. Kohlberg claims, "...if proper content of moral education is recognized to be the values of justice which themselves prohibit the imposition of beliefs of one group upon another" (cited in O'Byrne, 1976, p. 10).

Kohlberg (1981a) has stated that moral development stage change to a more adequate moral reasoning, is enhanced in children and adolescents through the opportunity for role-taking, and learning others' perspectives. However, this requires a democratic environment in which discussion of moral issues is equitable for all students, and exposure to a more adequate level of moral reasoning against which they may evaluate their own currently held reasoning. The environment must be a just one for the principle of justice to become the principle of choice.

Moral development is an important aspect of the ultimate aim in education: the fully developed intellectual and moral person. And as such, it is imperative that students are all equally armed with knowledge, critical thinking skills, and awareness of principles that guide moral reasoning in the utilization of all knowledge.

Statement of the Problem

The focus of this study is whether or not gifted adolescents are able to resolve moral dilemmas of a peer-oriented or practical nature at the same level of moral development as they are able to resolve hypothetical (Kohlbergian) moral dilemmas. The purpose served by such information is the determination of whether further research into the moral development of gifted adolescents is warranted and whether there are factors operating that would have implication for curriculum development and teacher education.

Need for the Study

In the review of literature it is noted that while there have been a few studies of moral development with gifted adolescents (of particular interest is Colangelo's, 1982) no study reported comparisons such as this study, and none reported the resolution of peer-oriented moral dilemmas by gifted adolescents, using a standardized, valid instrument. This study attempts to overcome this void and provide perhaps the first step toward collection of such scorable data, and also to determine the indication for further investigation. Another reason that further studies for data collection in this area would be useful is noted by Colangelo (1982). Colangelo points out, "As educators continue to emphasize the identification and development of gifted youngsters, it will be important to differentiate what needs these youngsters have and how they will differ from those of a general population of youngsters" (p. 231).

It was hypothesized that gifted adolescents may have a different moral resolution ability than is reported for general population samples. This study tested the hypothesis that gifted adolescents have similar moral reasoning abilities for peer-oriented dilemmas and hypothetical dilemmas.

Definition of Terms

The first three definitions listed are explained more fully in the SRM manual by Gibbs and Widaman, 1982 (pp. xiii, p. 23-24).

stage: The maturity level of reflective sociomoral thinking on a four stage sequence from childhood to adulthood.

Sociomoral Reflection: This is thinking about the reasons for one's evaluation of sociomoral decisions or choices.

Sociomoral Reflection Measure (SRM): This is a measurement instrument: a questionnaire that measures reflection, thinking, about moral decisions. It is a production task requiring subjects to express reasons for their evaluation of a moral problem.

Hypothetical Dilemma: This term seems, through accepted usage, to refer to Kohlbergian type of dilemma. That is, more distant societal vs individual type of moral dilemma that may not be a highly probable situation for most subjects.

Kohlbergian: This term is used in this study to refer to the type of hypothetical dilemma described above.

Academically gifted: This is the term used for the school board identified subjects used in this study whose IQ scores fall in the range of 130 to 145+.

"norm-tagged": This is a term used by Gibbs and Widaman in reference to the fact that questions on the forms elicit responses to specific norms.

Delimitations

This study is restricted to testing academically gifted adolescents. Test instruments are restricted to two written forms with self contained instructions which were group administered at two test times. One of the forms is a valid, reliable, Sociomoral Reflection Measure (SRM) developed by John Gibbs and Keith Widaman (1982). The experimental test instrument is a similar form but includes peer-oriented protagonists. The analysis of data is restricted to the degree of relationship between the scores on the two instruments.

CHAPTER TWO

Survey of Literature

The survey of literature in this chapter is not exhaustive but it provides background information for this study. This is arranged by sections that cover philosophies, developmental theories, and related concerns.

Philosophy

Morality, what it is and how it is acquired has been the concern of philosophers through recorded history. The concern seemed to have remained in the sphere of the great thinkers and writers, with only sporadic surges of interest voiced from the public.

One of the earliest philosophies recorded is that of Socrates (470-399). A great teacher and thinker, Socrates' life ended by execution for the principle that he believed in, truth. Those in authority did not understand, nor share his principle. Socrates believed in a rational or cognitive sense of justice that was available to everyone, he believed, through questioning and dialogue.

Plato, (427-347), a student of Socrates, understood that those in authority could not be just if they could not understand justice. He recorded Socrates' beliefs through dialogues that struggle with the question of virtue and whether it could be taught. In Meno, he suggests that dialogue only reveals what is already in the soul. In the Republic, Plato examines the kind of community where human nature can become what it ought to: in harmony with nature. Plato was not involved directly in civic life. For some forty years he taught his philosophy and speculations in his Academy in Athens. He worked toward getting people to want to live the good life by understanding what that was.

Aristotle (384-322), another Greek philosopher/teacher, studied twenty-two years with Plato at the Academy, but his idea of moral virtue was that it was the product of good habits, developed early in life. Children need to be told why and shown how good acts are performed so that over time the acts become pleasurable and self motivating.

To Aristotle, happiness was man's principle aim and this could best be achieved by mediating between opposing traits. For example, self respect is neither vanity nor humility, but in between. But, with truthfulness, one either was or was not truthful and therefore this could not be mediated. Instead, it could be overruled by a competing value, such as compassion, if good is achieved. Aristotle was not an idealist as was Plato but instead, he was more pragmatic and applied what worked best (McPhail 1982).

Recent study and translation revealed an ancient philosophy of morality that had been recorded in what is now India. Emperor Asoka (ca. 274-232), left a record of his proclamations on morality, the Edicts of Asoka, which were moral laws for his people to live by. He turned from his ways of war and worked for the peaceful enhancement of life. This was possible, he believed, through the exercise of benevolence, tolerance, and justice. He urged all people to meditate and gain insight and respect for all persons just as meditation had done for him. To enforce his moral 'edicts', Asoka was able to use political power to promulgate and protect the rights and dignity of all individuals in his land. The proclamations were inscribed in rock at various locations across his vast dynasty. These writings have been transcribed several times since 1837. The effects of the edicts, it seems, may have ended along with the dynasty about fifty years after Asoka's death. The dialect was no longer in use and the edicts may not have been understood (Nikam and McKeon, 1966).

Interest in Greek philosophy surfaced during the 1600's and more writing followed. John Locke (1632-1704) considered morality to be rooted in experience. Then Kant (1724-1804) focused on respect for individual rights. He believed in the universalization principle and his imperative that individuals be treated as ends, not means (McPhail 1982).

Then the Utilitarians of the 18thC and 19thC determined that authority for moral decisions should be derived from the consideration of the maximum good for the most people. John Stuart Mill (1957) wrote on utilitarianism, and liberty, noting the need for ensuring freedom from undesirable moral or governmental determinants.

Existentialism grew after the discouragement that loomed everywhere with WW1 and then the depression of the 1930's. Good moral life was not to be easily achieved in these harsh realities. Existentists believed that each individual was personally responsible for choices one had to make. Decisions could not simply be prescribed from external sources for people to carry out. It was the individual's responsibility to learn as much as possible in order to make the best decisions. Jean-Paul Sartre (1947, 1962) stated that man had only the self to depend on. He rejected the social thinking that allowed for the shifting of responsibility onto others. Such thinking, he felt, belonged to the political, religious, or other institutions that professed to know what is right.

A different point of view has suggested that individual's are very much a part of their social world and share in ideas, attitudes, and morals. Emile Durkeim wrote in 1925, about the social process he considered responsible for learned behavior and for decision making ability. The type of autonomy that he described involved the internalization of social attitudes such as rational, responsible, and altruistic, from which one could draw on for making moral decisions. (Durkeim 1961). Emphasis was not on individuals learning conventions through the use of logic and inquiry but rather, the learning was seen as the taking, acceptance, and the expression of society's morals.

Meanwhile, with the growth of public education, John Dewey was stressing the obligation educators had for ensuring the moral development of students. Logic, inquiry, and knowledge would form the basis of moral reasoning that is required for the development of morals (Reimer et al. 1983). This was stressed again by F.W. Frankena (1958) who claimed that it is the responsibility of educators to provide children with all the knowledge possible as well as the skills to learn for themselves what they may need to know in the future, that they may come to the right decisions in life.

R.S. Peters (1964, 1967, 1970) claims that the best way to know something as well as is possible is to learn it with one who has mastered the subject. Only this way can one truly gain a sense of it and experience it as nearly as is possible through intellectual processes. Peters believed that respect for persons, benevolence, and a sense of justice were worthwhile pursuits. Education, to Peters, is not an end, it is to have a broadened perspective with which to go through life. In a similar vein, T.W. Moore (1982) felt that being educated in itself was not the ultimate goal. That, he thought, was to be educated intellectually and morally so as to be a productive citizen.

It is interesting to note a diversity of aims or purposes for moral education in various countries. Truth, kindness, justice and freedom seem eminent through different wordings. Lionel Ward (1982) used resources from the 1970s and gave an overview of the aims in moral education for a few countries.

USA - virtue of truth, freedom, and excellence.
USSR - commitment and love of work and the collective.
France - temperance, tolerance, kindness.

Sweden - justice, equality, emphasis on process of development in moral education and transmitting normative values.

Finland - internalization of moral values and principles basic to the Universal Declaration of Human Rights.

(Ward, 1982, pp. 26-27)

Lawrence Kohlberg (1983) gives possible reasons for the resurgence of interest in moral education during the 1970s, forty years after the previous surge of interest. Among reasons he considers is the lack of faith in technology and the social sciences which had been the focus since the 1950s. Another is the rising crime rate and the perceived lack of moral leadership in political life with the issues of Vietnam and Watergate. Or perhaps, for American citizens, the rediscovery of the principles behind the American Constitution which is a stage 5, principle of justice, instrument according to Kohlberg (1984).

Kohlberg (1984) believes that the first virtue for individuals, institutions, or societies, is (or ought to be) the virtue of justice. Justice is equity or equal respect for all persons, universally. Kohlberg claims the deontological question of determining the rights and duties of individuals is answered by democratic justice (this is the how of it). The teleological question, the purpose of being moral, according to Kohlberg, is best answered by John Dewey's claim that the aim of education is to develop morally and intellectually, as fully as is possible, for the purpose of participating in civic life.

There is agreement among philosophers that the goal is not to stop when one has attained certain knowledge, even moral knowledge, but rather, it is the utilization of it for the best possible good in one's civic life. The operating principle throughout moral development is some form of justice and applied universally in daily life.

That a higher stage of moral reasoning is more adequate, Kohlberg claims, is explained by children moving from stage to stage in an upward trend. (Kohlberg, 1981a). Kohlberg started out with the belief that (a) there are ontogenetic trends, universally, toward the full development of morals and (b) the process for the development of morality is other than cultural or arbitrary, but entails a sense of justice throughout the developmental stages. For example, at stage 1, it is like an eye for an eye, and at stage 6, it is equity, based on moral principles. At each of three levels there are four kinds of justice that get dealt with.

1	distributive	(assets-equality is the principle here)
2	commutative	(exchange, reciprocity, punishment)
3	corrective	(criminal, or private)
4	procedural	(type that addresses problems with the other three kinds of justice)

(Kohlberg 1981, p. 143; 1984, p. 621)

Also, there are four orientations to these justice problems: norm maintaining, utilitarianism, perfectionism, or fairness orientation (Kohlberg, 1984). This gives some sense of the complex way the structure of justice is held.

Conflict usually centers on relative claims of equality (everyone deserves it) vs reciprocity (only those who worked for it deserve it), or, between equal liberty and equal benefit (Kohlberg, 1981). With the various views of justice at different stages, from different orientations, conflict is understandable. It is possible to see that much conflict could be reduced from daily life, by increasing the number of persons reaching the highest level of moral judgment based on the principle of universal justice.

Moral Development

Various psychological and sociological theories, descriptions, or explanations have been put forth over time which try to understand the process underlying moral development or maturation. First, there is the Freudian, psychoanalytic school which considers that moralization occurs as a result of the internalization of parental and societal norms. This theory seems to suggest that there is little cognitive effect and control on one's moral development. Indeed, development springs from biological, subconscious, and ego needs (Kohlberg, 1984).

Social theories such as the work by Bandura and his colleagues during the late 1950s and 1960s, Aronfreed during the 1960s, and Hoffman in the 1970s began appearing. (Kohlberg, 1984). The main idea set forth by social theories is that behavior can be studied and perhaps manipulated. Behavior was seen as a response to stimuli such as punishment or reward, and the need for acceptance. Any social theories account for morality as culturally relative; the internalization of the codes of behavior of others.

There was a psychology of social intelligence that began in the 1920s, with the work of Thorndike, who thought of social intelligence as an ability to manage people and he held that it is a different intelligence from mechanical and abstract intelligence. The ability to manage people is to have successful social interaction which requires one to have the ability to treat others with respect and cooperation. This requires the ability to take another's perspective and apply cognitive function or analysis, and to synthesize all of the accessible information (Gibbs/Widaman, 1982; Catania, 1974).

In the sense of social intelligence, Piaget (see Catania, 1974) considered his formal operations stage to be the stage when adolescents are adept at social interaction. They no longer require concrete stimuli for generating behavior.

In the late 1960s, Guilford (see Gibbs/Widaman, 1982; Catania, 1974) developed a model of intelligence that had social intelligence factors that combine information from all three dimensions of his model: content (information); operations (process); product (behavior). Social intelligence was recognized as a separate and measurable aspect of development.

Other researchers looked at individual differences on various aspects of personality and learning style. Hogan (1970) studied individual differences; Witkin (1978) studied field independence, and Rotter (1966) studied locus of control (Gibbs/Widaman, 1982). All have contributed to knowledge of individual developmental differences and may bear on understanding differences in moral growth.

Gibbs and Widaman (1982) note the need for research on the relationship of field independence and internal locus of control to the autonomous substage orientation. Such study may determine whether these are held simultaneously by individuals. Perhaps autonomous moral thinking is the result of a personality trait or individual difference that resists the influences of social moral thinking or behavior exhibited around them by others.

Questions that would have to be explored are whether individual characteristics are innate, whether they inevitably unfold, whether they are the product of the environment, or whether an autonomous type of individual alone, holds the potential for the greatest moral development. And, what implications this has for educational efforts toward extending the moral development of students.

Piaget. Jean-Paul Piaget (see Reimer et al., 1983), a Swiss psychologist, researched the development of human intellect. Piaget presented a developmental concept noting that cognitive processes change from stage to stage in an invariant sequence throughout the maturation process of children. This theory, focusing on development, was viewed favorably in America in the 1950's. Interest in improving intellectual development was spurred by the technological race following the Russian space venture.

Piaget's study of cognition originated with his curiosity about the similarities of incorrect answers on intelligence tests. Intelligence tests measure how much children know but not how they reason in relation to children of other ages, nor why they reason as they do. He set out to study this process, and to describe the pattern of cognitive development through maturation. Piaget's method was to give a child a problem and to study how the child solved it, asking questions of the child to understand the child's reasoning process. He noted that younger children consistently gave the same kind of wrong answer at a certain cognitive level. He determined that they were using consistent logic for their age-developmental stage. For example, four year olds viewed the sun as being smaller than the earth but seven year olds used the perspective of distance to account for the small appearance. Changes in logic were in relation to experience with the objective world and hence, developmental in nature. Instructional learning could not effect a change in logic. Four year olds could not understand why the sun is larger even if told so (Reimer et al., 1983).

It was reported (Reimer et al., 1983) that Piaget believed that humans, like all organisms, organize and adapt to their environment. Systems such as respiration are organized and Piaget believed that the human mind is also organized. This occurs through assimilation of what is (the stimuli) to changes or demands by the environment through accommodation. This process of assimilation and accommodation to changes in the environment, is how the organism develops.

At certain points over the course of maturation, a child has organized cognitive abilities characteristic of a certain thinking form. This represents a stage in the course of a child's development. Piaget (Reimer et al., 1983) believed that cognitive development occurs from infancy through adolescence. Piaget claimed there are four distinct periods of cognitive development. The first, sensorimotor is from birth to age two and is a stage with control only of motor and sense. The second stage, preoperation, is from age two to seven. Thought emerges and mental images of non visible objects are possible. Piaget felt that thought was the basis of language, not the result of language. The third stage, concrete, is from age seven to about eleven. At this stage, logical operations are gained gradually, across all aspects of life. Logic is applied between perception and judgment. The last stage, formal operation, from about age eleven on, is reasoning with abstracts. Ability at this stage varies with individuals.

According to Piaget (Reimer et al., 1983), cognition and affect cannot occur independent of each other, both develop along parallel lines. A moral judgment is the cognitive structuring of some feeling such as how we feel we should treat others. In Piaget's theory, interest had to precede the thinking about something. If we do not care about something, have no feeling about it, then we do not apply cognition or cognitive reasoning. Feelings, or affect, would have no meaning without a cognitive structure accompanying it.

To understand the structure of moral development, Piaget (Reimer et al.1983; Kohlberg, 1984) began observing children at play, how they handled the rules at different ages. He noted that at certain ages or stages, children had a particular moral reasoning structure in common. The structure changes, becomes a different stage, in relation to the child's evolving cognitive structures and knowledge of the world. The moral development stages determined by Piaget in 1948 are premoral and heteronomous which are concerned with obedience followed by two stages of autonomous moral stages. These two are concerned with reciprocity and equality, (stage three), and with ideal reciprocity and equality (stage four).

Piaget's work, published in 1932, has been the theoretical base for moral developmental research. His theory considers that logic and moral reasoning develop in an invariant, hierarchial, integration of prior stages (O'Byrne, 1976). Each stage builds on the last one, expanding, improving along with cognitive maturation or development. This work in developmental stages of moral development was continued by Lawrence Kohlberg after 1958.

Kohlberg. Lawrence Kohlberg (1981a) began his work in moral development in 1958. He was influenced by Piaget's stage development theory and by the principle of justice philosophy. He expanded and revised Piaget's stages of moral development but maintained Piaget's notion of development through an invariant hierarchial sequence. Movement through this sequence occurs generally at certain age ranges, but the rate of movement and the end point of movement are varied for individuals (Gibbs/Widaman, 1982). There is some evidence to suggest that this movement can be aided somewhat with the attainment of broadened perspectives such as occurs with role-taking, peer interaction, and experience with group discussion of moral issues in an environment of democratic justice. Exposure of one higher stage of moral reasoning by way of discussion seems to appeal to adolescents as being a better way of thinking morally (Kohlberg, 1981a).

Morality is more than the acceptance and expression of values; there are underlying structures of thinking that form moral reasoning (Gibbs/Widaman, 1982). Kohlberg believes that once concrete operations develop, role-taking can occur. By weighing moral claims from all perspectives (roles), moral reasoning occurs. Understanding the physical world precedes the development of cognitive structures needed to understand the social world in which role-taking is possible (Reimer et al., 1983).

Longitudinal studies have provided empirical evidence of the invariant sequence of hierarchial integration of stages proposed by Kohlberg (1976; 1984). Over the years, there has been some refinement and even some redefinition at the higher stages. The original scheme of levels and stages will only be mentioned briefly here. Kohlberg established that there were three levels of moral development for conventional morality of a society. The first level, preconventional morality, is held from infancy to about age nine but occurs in some adolescents and some criminal offenders. Behavior is determined by external rules; social convention is not fully understood. The second level, conventional morality, is the level at which most adults in most societies operate. This is internalized rules, conforming to and maintaining the conventional rules and norms. The last level, postconventional morality, is held by only a minority of adults, and usually only after age twenty. Individuals at this level understand society's rules but use self-chosen principles (the justice principle) wherever conflict arises between their held principles and societal rules or convention.

Each level has two stages with the second one being more organized and more advanced. The stages for level one are heteronomous and individualism. These are concerned with obeying rules, avoiding punishment, satisfying one's own needs and allowing others to do the same. Perspective taking begins by stage two. The third stage is concerned with mutual interdependence, complying with expectation and seeking approval. There is also a focus on individual relationships. The forth stage is a social system stage concerned with maintaining social institutions, upholding the law and taking the social perspective of the generalized other. The fifth, social contract stage, involves commitment to duties with family, society, and allows for relative values held by cultures but also has an awareness that some values are universal. A prior to society perspective is taken for those certain values that supersede other rights. The sixth stage is a universal ethic principle and exhibits commitment to that principle (self chosen ethical principles of justice) that considers all persons equal (Kohlberg, 1976).

Empirical data for theory and stage definition was collected through longitudinal studies. Kohlberg's (1981a) original longitudinal study involved 75 boys age 10-16 years at the onset of the study. They were interviewed every three years for 15 years. Similar studies were carried out in other countries: Turkey, Israel, Taiwan, and Malasia. Kohlberg used the Heinz (see page 108) moral dilemma, adapted as a life-theft dilemma of the local culture.

Definite stages of reasoning were verified when Kohlberg (1981a) found that regardless of the different reasons given for peoples' judgment, if they were at the instrumental stage (two) in moral reasoning there were common reasoning structures that could be identified. Instrumentalism was still instrumentalism at the core of the various reasons given even if they may seem to represent different cultural values. An example reported by Kohlberg is that a Taiwanese may reason to steal because if his wife dies it causes a large expense as funerals cost a lot there. But in the Atayal village, the concern was to steal so that the wife could still cook for him. Both reasons are culturally relative but basic to both is instrumental reasoning, a structure held in common. It is commonality across cultures that defines the criteria for stages of reasoning. This provides an identifiable form of thinking about moral problems that Kohlberg refers to as 'structural wholeness' (p.137).

In longitudinal study, Kohlberg (1981a; 1984) observed that commonalities in thinking structures were evident, in stage grouping, as the subjects developed cognitively, experienced their society, and gained the perspectives of others. The rate of progression through the stages may vary somewhat with individual differences but it was clear that progression was in an invariant sequence.

According to Kohlberg (1981a; 1984) the criteria that reasoning stages ought to meet is invariant order, structural wholeness, and hierarchial order. The stages he has identified have the necessary criteria. Over 50% of the subjects' responses were at a particular stage, unless they were in transition between adjacent stages.

Movement in the invariant sequence is to a higher stage (occurring later) and each later stage is a better stage. Kohlberg believes that this is supported by the philosophical thinking about justice. The notion of justice becomes broadened until it is a universal justice. Invariant sequential movement is evidence that morality is not innate nor is it intuition. Ethical (moral) thinking and logical (cognitive) thinking each have a particular form, parallel to each other, at each stage of development (moral and cognitive development) (Kohlberg, 1981a).

Logical reasoning alone however is not sufficient for moral reasoning to occur. One can have the logical structures of a higher stage but not have the parallel moral thinking structures needed.

Moral reasoning and cognitive level discrepancy may have several causes. Possibly, it is just easier to reason about the physical realities. Or, it may be due to the fact that it is perceived as not in one's interest to reason at a more principled level, resisting the commitment and sacrifice that may be required. And, it may be due to the effect of will, desire, or emotion, held by the individual (Kohlberg,1981a).

Affect and cognition are viewed as different aspects of mental events. Kohlberg (1981a) gives the example of the anxiety felt by an astronomer having calculated that a comet will hit earth, but it is no less cognitive than if he calculates that a comet will not hit earth. Another example that he gives is about the feeling two youths might both experience as they prepare to steal. A queasy stomach may be interpreted by one as only feeling scared while the other may interpret the feeling as a warning from his/her conscience and decide not to steal. The different behaviors are the result of different structures of moral reasoning being applied and not the direct result of affect. Affect occurs but the moral force is cognitive. Affect has no morality, and according to Piaget, has no meaning but for the interpretation cognition gives to it.

Kohlberg (1984) reports of a review of data for the relationship of conscience or superego strength of the Hartshorne and May type of measures (honesty, resisting temptation) and affect, and he concluded that there was no relation: moral behaviour is not determined by emotion. Cognition, moral thinking or reasoning, must occur even if it is a response to emotion.

Movement from one stage to the next, says Kohlberg (1981a), is accomplished through the prerequisite cognitive structure and encountering disequilibrium of the held moral reasoning structure. The best facilitator for this process of questioning of the adequacy of one's moral reasoning, is role-taking. Kohlberg (1981a) refers to role-taking as reversibility. This is assuming the other's perspective and weighing claims from all perspectives in a situation, issue, law, etc. and applying the principle of justice. That is moral reasoning.

There appear to be typical age periods for stage change (Mosher and Sullivan, 1978). Longitudinal studies indicate that the change from pre to conventional moral thinking is likely to occur between 10 and 13 years of age. If it does not occur then, the likelihood of the change ever occurring is reduced. The second transition is between 15 and 19 years of age to postconventional moral thinking and if it does not happen then, the likelihood of it ever occurring is also reduced. Therefore, it is important that opportunities for role-taking (as has been associated with assisting in the development) be made available, in a democratic environment (equal access to discussion) throughout the education years. A person can only be aware of frustrations to his/her own needs or desires unless they learn to take the perspective of a competing claim (the other person). Moral reasoning, and moral growth cannot occur without an awareness of a different and a better way of resolving moral problems. Moral problems cannot even be recognized as such unless one can see the competing claims in the issue. Change in stage occurs slowly through such experience.

It was found that moral judgment (stage) is positively correlated with age, socioeconomic, intelligence (moderate, .37 - .59) and education (.54). Also, childhood scores correlate significantly with adult scores. Empirical evidence indicates more middle class subjects reached stage 4 or 4 1/2, although lower class college graduates also did. No subjects reached 4 1/2 without college education. It was also noted that peer interaction was important for the change to stage 3, but that social class is important in achieving stage 4 (Colby et al., 1983). Religion was found not to be a factor; there was no difference between Catholics, Protestants, Buddhists, Moslems, and atheists (Kohlberg, 1981a).

Noting the moderate to positive correlates to moral development above, it is surprising to learn that an estimated 80% of Americans never develop autonomous moral principles. The U.S. Constitution is a stage 5 instrument of freedom and justice, but the citizens do not understand its inherent principles (Mosher and Sullivan, 1978).

Throughout the process of gathering longitudinal data, refinement occurred in stage definition, structural criteria, and in the measurement instrument itself. Kohlberg's Moral Judgment Interview (MJI) scoring instrument was revised several times. A second one was in use by 1971, the Standard Issue Score, and then an intuitive issue rating was in use from 1972-1975. Finally, during the late 1970s, the Standard Issue Scoring was designed in collaboration with John Gibbs, Anne Colby and Marcus Lieberman (Colby et al., 1983).

Kohlberg (1984; Gibbs/Widaman, 1982) added two substages to his model, orientation A and B. The A orientation retained the original position of the stage. For stage 3 that was heteronomy, concern for authority and approval, and dealing with the situation as is given in a dilemma. Whereas the B orientation, autonomy, has a broader perspective and considers the inherent injustice in an issue, outside the realm of the immediate considerations in a dilemma.

With redefinition and refinement, stages 5 and 6 became more philosophical constructs (and stage 6 may only be a theoretical elaboration of stage 5). Stage 6 virtually had no support, no evidence of people reasoning at the stage although some extraordinary individuals in history could be examples of such principled thinking.

Further, Kohlberg (1984) has since contemplated the inadequacy of stage 5 (and 6 thinking) in answering the question of 'why be moral'. He claims that ultimate moral development must resolve the philosophical issue dealing with the question of what it means to live.

There is evidence that stage 5 is an adult-only stage. Perhaps adolescents can be aware of universal ethical principles, but this can only be anticipated commitment. Social and moral experience are necessary and often include strong emotions which can then cause deeper reflection and the resultant higher level reasoning about moral issues or claims. For stage movement during childhood and adolescence, less experience is required for a stage change. Each stage is a more adequate perception of the social system up to stage 4. But then to see through principled ideal, what ought to be in the social system but is not, and to be connected to the real society that is meanwhile, takes some searching personal experience of choice and commitment.

An example of the difficulty of reaching stage 5 is given by Kohlberg (1984). On the longitudinal study, only 13% reached stage 5 and they were between age 24 and 40. All had some graduate education. However, of all of the subjects who had graduate education, only half reached stage 5. Education alone is not sufficient; it is the work experience after the education that seems necessary. Doctors only reached stage 5 after residency was over and they were working in high-moral-responsibility areas. He refers to a study in which doctors reached 4 1/2 after they began working. Lawyers were mostly at stage 4; 20 years later, at 4 1/2. One stayed at 4 throughout, not experiencing 4 1/2 relativism. For lawyers, the job allows a sense of shared responsibility for the fairness of the outcome with the court. Also, empathic role-taking might be of a different nature or purpose (Kohlberg, 1984).

Kohlberg (1984) considers that there are three phases to moral development research. The first phase, 1958 to late 1970's, established the developmental theory. The second phase was the longitudinal study of structuralism. The last is the naturalistic study of moral behavior in the context of group atmosphere where it largely occurs (ie. schools). It is possible, considers Kohlberg, that groups or institutions have a shared stage, or common construct to be studied in their own right.

Moshe Blatt (1969) had earlier succeeded with intervention in a high school classroom using discussion of dilemmas for one semester and 1/3 of the students did change one stage in their reasoning by the end of the semester. In 1974, the Cluster School project was undertaken and it also proved that some advancement can result from exposure to higher moral reasoning. Students can understand, and prefer reasoning, one stage above their own (Kohlberg, 1984).

A group atmosphere seems to have at least two important effects. The first is that the group bears on moral reasoning in that it provides situational particularities that influence the weighing of perspectives. The other is that decisions of moral issues grant the opportunity for the display of moral reasoning in process. Also, it affords the display of commitment to moral principles through the behaviour of others. The justice structure (Kohlberg, 1984) of an environment or atmosphere, how rights and duties are distributed, is important in the effect that it can have on the development of a moral sense of justice. Role-taking must occur in a just environment. Kohlberg gives an example of a reform school as a stage 1 (rules) and the inmates as stage 2 (instrumental, exchange) and as such, a sense of justice is unlikely to develop (Kohlberg, 1981). In two groups studied where children were growing up, it was found that children at an orphanage reached a lower stage of development and had less role-taking interaction in their environment. On the other hand, children in a kibbutz had higher stage scores and it was noted that there was intensive interaction, discussion, and participation in decision making (Kohlberg, 1984).

The Measurement of Moral Development

The methods of measurement that are most familiar are Kohlberg's (1971) Moral Judgment Interview (MJI) with the related Standard Issue Scoring, and Rest's (1979) Defining Issues Test (DIT). A brief description of these two will be followed by a summary review of the method of measurement used in this study, the Sociomoral Reflection Measure (SRM) designed by John Gibbs and Keith Widaman (1982).

Defining issues test. James Rest (1979) had worked with the Harvard (Kohlberg) group and with Kohlberg and decided to develop a new way of gathering data for study in moral development. The original MJI was complex and cumbersome and this inhibited its wider use and thus limited research in moral development. Rest left Harvard for Minnesota where he completed the Defining Issues Test in 1971. The DIT is a multiple choice test which can be rated by computer and thereby simplifies scoring immeasurably, and it also increased rater reliability as no interpretation is required. While the

DIT correlated somewhat to the Harvard group's scoring, it was insufficient to be considered an equal test (Gibbs/Widaman, 1982).

The DIT assesses only recognition, comprehension, and preference of methods of resolving moral dilemmas. That is, it collects information on how people perceive a dilemma and not how they justify a moral judgement. There is no request for an explanation of their thinking. Rather, thinking representative of the different stages is given and subjects are asked to select, or rank by importance, the statements given (Rest, 1979).The DIT has twelve items per story to cover the dilemma and subjects are asked to select on a Likert-type scale how important each statement is considered. But it does not determine the subjects' tendency to use such judgement as they select. From 1974, the year the manual was published to 1979, the instrument had been used on 800 subjects (Rest, 1979).

Moral Judgment Interview. The Moral Judgment Interview (MJI) is the main instrument that has been used to gather data since Piaget's efforts. The MJI, devised by Lawrence Kohlberg, is a three form (A,B,C,) questionnaire, one of which is completed with a subject through a personal interview. Each form has three stories in which a dilemma has two competing norms, or values. The questions are designed to probe the subjects reasoning; the justifications for the assessment of the dilemma (Kohlberg, 1984; Gibbs/Widaman, 1982; Colby et al, 1983). This interview method has been used to gather data on an impressive number of samples (including those of a longitudinal nature) of other cultures such as Turkey, Israel, Taiwan, Malaysia, and of course, America. The empirical data was gathered to develop and support the moral development view.

Both the interview form and the scoring method have undergone changes over time, with refinement in the stage criteria but holding to the invariant sequence of movement which is the foundation of developmental models. The Standard Issue Scoring, developed in the late 1970's, in collaboration with John Gibbs, Anne Colby and Marcus Lieberman (1983), is the result of standardizing the interview questions and the refinement of stage criteria. There has also been changes to the stage definitions. A transitional stage 4 1/2 has been identified as well as substages for stages 3 and 4. The substages are A and B orientations. These orientations differentiate between the heteronomous and autonomous outlooks in general, that tends to remain stable as the individual matures across stages 3 and 4. This was discussed earlier under Kohlberg's theory.

Sociomoral Reflection Measure. John Gibbs had been a member of the Harvard group that developed the Standard Issue Scoring in the late 1970's. From this experience he envisioned a method of measuring spontaneous responses to dilemmas (qualitatively still) which could be group administered by a paper and pencil test with simplified scoring. John Gibbs and Keith Widaman (1982) developed the Sociomoral Reflection Measure. The main reason for the development of this instrument was to streamline the questioning such as to elicit the same type of specific and generalized moral thinking, as does the MJI, but to eliminate the necessity of rating the extraneous material that is required with the prototype. Otherwise, it remains very close to the MJI test but is much more accessible because it has self training and interrater reliability built into the scoring manual. The accessible, portable scoring, and the group administration test forms will further research efforts in this field.

This instrument has two parallel forms (Form A and Form B). Each form has two stories or dilemmas, each of which has two competing norms. The written test has questions that are 'norm tagged'; that is, they deal with only one norm. The question is phrased in such a way that a particular norm shall be responded to. These responses, like the MJI responses, must be matched, using the manual, with the criterion justifications under each aspect of each stage of the relevant norm. Criterion justifications (CJs) are the core meanings in any wording used by respondents. Aspects are features of a stage of thinking attended to. There are approximately six per stage. An example of aspects for stage two (instrumental) reasoning are; exchanges, preference, needs, advantages, concrete rights, equalities (Gibbs/Widaman, 1982).

The main difference between the SRM and the MJI is that with the SRM there are only two dilemmas per protocol, the questions are written and respondents do not get any verbal probing from the interviewer. But, all of the required probing questions are included in the written questionnaire and still do elicit spontaneous production of reasoning. The rater, with the SRM will not have to rate the non chosen norm. And, there are differences in the number of stages, the SRM has only four which correspond to the first four of the MJI, and the SRM also considers that there are only two levels: immature (stages 1 and 2) and mature (stages 3 and 4). The latter requires role-taking for acquisition and thinking about what is right interpersonally at stage 3, and societies at stage 4. Even though Kohlberg has redefined his stage 6 as an operational stage 5, the authors of the SRM do not agree that there is clear evidence for distinct thinking defined as Kohlberg's stage 5 (Gibbs/Widaman, 1982).

However, the authors of the SRM do acknowledge that there are two types of theory defining thinking that is similar to Kohlberg's higher stages. The first kind is a "relativism of individual vs societal rights"(TR) (Gibbs/Widaman 1982, p. 34). This is thinking that relativizes situations to personal values. It would hold that if someone held a value, no one could invalidate it. The second is theoretical principle (TP) which examines some rights before other claims (like life, liberty). While TP is superior to TR, it is not recognized as a separate stage by Gibbs and Widaman. Both TR and TP are found only in a few norms and they do not have differentiating aspects as do proper stages.

The SRM does acknowledge Substages A and B of Kohlberg's model. The SRM considers orientation A (heteronomous), and orientation B (autonomous) and these modes of thinking may appear across stages 3 and 4. "A" thinking focuses on the content as given in a situation. The "B" thinking would extend or change the problem by considering the injustice of the situation (as given) prior to considering the situation. The B oriented have a broad view of the issue in a situation (Gibbs/Widaman, 1982).

The self-training with the SRM is an important feature of this measurement instrument. Reliability of a rater can be established with the authors who are trained raters, through built-in interrater testing (see Gibbs/Widaman, 1982, appendix B and C and chapter four). The authors tested raters they had trained, and they also tested self-trained raters who used the SRM manual. There was a high correlation: the SRMs scores had percent agreement in the 80s and in the 90s for discrepancies within 1/3 stage (Gibbs/Widaman, 1982).

Related Concerns

The question of moral judgment being related to moral action remains unsatisfactorily answered. There is evidence for and against the relationship. Grinder, as reported by Kohlberg (1984, p. 504), has suggested that thought and action, or moral behavior, are independent of one another, that certain actions appeal as more rewarding in some situations, even though one may know what would be right. Kohlberg also noted that other researchers claim that approval and reinforcement directly influence behavior, and that it is not the result of cognitive operations of moral thinking referring to subjects in Milgram's (1963) study of obedience who were capable of moral thinking but continued to obey and cause pain (per se). Kohlberg points out that the MJI test is of what a moral person ought to do, not of what he/she necessarily would do in any particular situation. He does say that because the hypothetical dilemmas are not relevant to only particular situations, the test is meaningful to all people as a test of reasoning capabilities.

There are discrepancies reported between tests of hypothetical and practical dilemmas. First, this would be due to the fact that hypothetical dilemmas tap 'ought'to' reasoning and secondly, the practical type of dilemma taps 'would do' reasoning. In practical situations one is more aware of obligations in light of the particulars, whereas hypothetical dilemmas present more general responsibility situations.

Kohlberg (1984) believed, however, that there is likely to be consistency between the reasoning and a behavior if the form of reasoning, and the reasons for an act were examined. He also notes that a just act possibly can result from other virtues such as altruism, or care and responsibility.

Yet, there are occasions when a universal right does define behavior. The example Kohlberg has is the philosophical and empirical support for the preeminence of universal right to life over other rights, as gathered from the hypothetical dilemma of Heinz. At stage 5, 90% agree to steal; at lower stages, 60% still agree steal. These figures are from the studies done in the USA, Finland and Israel (Kohlberg, 1984). There are some universal rights then that would determine behavior above any other consideration.

However, there are examples of behavior where the preeminence described above does not seem to apply. Kohlberg discussed the My Lai massacre, which involved the immoral execution of non-combat civilian women and children by several men following the order of a military officer. This reportedly was a group accustomed to following military orders. One man did not participate. Kohlberg (1984) reports that this man was later interviewed and found to be at stage 4B and 5 (on Kohlberg's measure of moral development). There was correlation between this man's moral reasoning and action.

Other researchers have looked at the relationship between moral reasoning and moral behavior. For example, Blasi (reported in

Turiel, 1984) did a comprehensive review of studies and determined that: a substantial number of studies report a close relationship between judgment and behavior; and a moderate number of studies found lower correlations.

Larry Nucci (1985) noted that Blasi would add two conditions necessary for cognitive development which have an effect on the behavior chosen by individuals. These are moral identity; that is, whether or not one feels that he or she is a moral actor, and the level of need or desire for consistency between thinking and acting. The importance for behavior could be mediated by the perception of moral identity.

Another concern is affect, and the part that it might play in moral behavior. Junell (1979) believes that for the development of social conscience, moral reasoning is less important than emotion. He claims that children learn by experience, emotion and feeling about something. Children learn through experiencing emotionally, the struggles faced by people in real life. And Wallen (1977) concluded that teaching cognitive reasoning alone would not result in moral behavior. Strong emotion had to be involved in order to affect behavior.

Hoffman (1984) found that empathy increased with role-taking. His subjects either could visualize someone in a situation and how that person would act to solve it or, the subjects could visualize themselves in the place of that other, making the situation their's. It was found that people tend to be more empathic toward others perceived to be most like themselves. However, the possibility exists for too much empathy in which case the resulting action may arise out of egotistical need and less out of empathy for the other.

Piaget (1965), as was noted earlier, claimed that affect and cognition are two different aspects but work together as one mental event. One has to feel or care about something in order to be motivated to think about it. He thought that affect may be the motivational force for difficult moral action. Kohlberg (1981a), on the other hand, believes that action is the product of reasoning, not the result of emotion. Moral action is the response to cognition operating on all stimuli. Emotion, he notes, accompanies cognition in a parallel way, but emotion itself is not moral, yet it is a force on cognition. Indeed, Kohlberg believes that feeling the sense of a dilemma through role-taking is believed to facilitate the reintegration of moral cognitive structures at a higher level of reasoning.

Other disciplines, psychiatry, psychology and philosophy have given some attention to the crises-disintegration scheme of personal development which results in gained insight and sensitivity. These views are along the same order of the cognitive and moral developmental views, but of more extreme dimensions. An example of the psychiatric probe is Dr. Dabrowski's theory of disintegration (see Hague, 1976) of philosophers, John Gardner's (1975) objective subjectivity, and psychologist Carl Rogers' (see O'Byrne, 1976) method of dialogue for thinking through crises, gaining insight and strength of character.

Another concern is the gender issue which has been studied as incidental data in some studies or as the sole purpose such as in Gilligan's (1982) study of women. Gilligan determined that a different kind of moral thinking occurs with females. She found that women placed more emphasis on caring, relationship, and responsibility than on rights and rules. In a study of women, conducted through interviews, women were asked to define moral problems from real life situations. This rights and responsibility study was a longitudinal study across nine age points from age six to sixty, with eight males and eight females at each age point for a total of 144, matched by age, intelligence, and occupation. Gilligan also collected data on self concept and morality using moral conflict and choice experiences of the subjects compared to their judgment of hypothetical dilemmas. It was found that women tend to reason from the point of responsibility and relationship and men from rights and rules.

Nel Noddings (1984) wrote a book about the caring approach to moral development. He believes that morality depends on caring, not on principles. The sense of caring must be strong although the duration need not be a factor. He states that it is important to assume the other's situation almost as though it were one's own situation. This is similar to findings noted earlier, on affect, but there it was determined that too much empathy could be cause for egotistical effect in the (moral) action. That is acting as if on one's own behalf casting doubt that the caring is of the other at all.

Noddings (1984) also makes the point noted earlier, that it is possible that one can behave ethically without conscious moral reasoning; other motives such as altruism and caring, may be responsible for the behavior. He believes that there are universal features to caring, and it would be possible to found an ethic of caring.

On the other hand, there are researchers who disagree with the gender dichotomy. Some studies have not found differences by gender. The examination of the rights and duties concept and of Kohlberg's principles may reveal that responsibility underlies the principles of rights. Hence, both rights and responsibility (or caring) are operating in Kohlberg's principled thinking.

Nunner-Winkler (1984), clarifies the distinction between perfect and imperfect duties. She refers to the meaning and intent by Kant of the notion of perfect duty. A perfect duty, she reports, is a duty to not do something. A duty not to kill, for example. It is considered imperative to perform perfect duties all of the time. On the other hand, an imperfect duty would be considered a duty to do something. One should be charitable, for example. But, it is impossible to perform imperfect duties all of the time, and no limits are defined for it.

Nunner-Winkler (1984) sees the ethic of care and responsibility as concerned with imperfect duties, and the rights with perfect duty. She claims that both positions are part of one morality but that women choose more from imperfect than perfect duties. If Kantian perfect duty was applied to the Kohlberg dilemma, Heinz would 'not steal' at all times. Or, it would be the duty to 'not' be killed, to not kill, which does not involve the responsibility to do something to save a life. But, the right to life supersedes other rights, even to saving the life of a stranger. Saving a life is an imperfect duty, a duty to 'do' something. As a universal, then, it becomes a duty to save all the lives possible: to steal to feed the poor of the world if necessary to save lives. She does not believe Kohlberg intended that although saving a life seems like a perfect duty. Rather, it is taken that Kohlberg intended that the universal principle of right of life is an imperfect duty, and as such, not to be performed all the time. Both responsibility and rights are involved.

Nunner-Winkler (1984) noted studies that failed to show that women have a preference for duty of care. She also noted that in Gilligan's study, some women were more responsibility oriented than others; the preference by gender was not held to the same degree for all women.

Pratt, Golding, and Hunter (1984), used various measures in their study. They used the MJI, Bem Sex Role Inventory, personal attributes questionnaire, and self ratings on traits of masculinity and femininity. Overall they found no gender differences contrary to Gilligan's 1982 study. Pratt, Golding, and Hunter (1984) postulated that the MJI may not be sensitive to gender differences at the lower moral reasoning levels. Gilligan (1982) had used practical, personal, real life dilemmas.

In a study by Gibbs, Arnold, and Burkhart (1984), it was found that women used more empathic role-taking at the stage 3 justifications, favored appeal to conscience, and were more conscious of responsibility. They used 177 males and females between the ages of 11 and 21. And, in their review of studies, it was found that there are no differences attributable to gender.

Gibbs and Widaman (1982) found no difference by gender in any of the samples collected for their measurement method design and testing. Rest (1979), as reported by Cortese (1984) did not find differences by sex when education and occupation were controlled for.

The next area of concern is whether there is a directional relationship between intelligence and moral development. This has been noted as incidental data in some studies and studied directly in a few studies. Carter and Ormond (1982) reported that the gifted acquired formal operations earlier and the duration at a stage was shorter than is the case for average subjects. The gifted were superior in performance on traditional norm-referenced intelligence tests.

With elementary males, Janz (1973) found a positive relationship between moral development and intelligence. Hilton (1978) completed a study with high school students. He reported a significant correlation was found for factors of intelligence and of social class, with moral judgments. Bear (1979) conducted a study with intellectually advanced sixth graders. He also reported that the subjects had higher moral development scores.

However, only a moderate correlation was found by Kohlberg (Colby et al., 1983) between intelligence and moral development (.37 to .59) with subjects age 19 to 36. But in the higher stages of moral development there was a "rising correlation with IQ" (Reimer et al., 1983). Rest (1979) also noted a moderate correlation to IQ of .20 to .50.

On the other hand, there have been studies reporting no correlation between intelligence and moral development. It is not known whether intelligence becomes a positive influence in moral development at the gifted level only. Flynn (1984) studied age, sex, intelligence, and parents' occupation, with preschool subjects but no relationship was found on the intelligence factor.

On personality traits, the gifted appear to have the potential for higher moral thinking than their age mates. Lehman and Erdwins (1981) used two personality measures to determine the advancement of the gifted in the emotional and social spheres. They found that the gifted students had skills to interact tactfully, could put others ahead of their own wishes, favored democratic ways, felt greater personal freedom, valued cooperation over competition, and are more comfortable with interpersonal relations, exhibiting more positive feelings. Overall they had higher scores than did their age mates. On some of the social adjustment subtests they even scored higher than did their mental age mates.

John Jacobs (1971) studied personality traits of gifted students. Of particular interest to this study is an excerpt from his report.

> The gifted showed...greater profit from broader experiences, the ability to select essential aspects from their experiences, great advancement in the practical common-sense sphere....less reliant on adults as an approval force, and the greater capacity for the emotional reaction to the environment and awareness of the emotional interplay between the individual and the environment and greater sensitivity to the emotional pressure of the environment.
>
> (Jacobs, 1971, p. 199)

It would appear from this list of traits that subjects of higher intellectual ability could have a higher level of moral reasoning ability and moral knowledge based on their greater sensitivity. They also would have the prerequisite cognitive development, role-taking ability and the capacity for feeling the situation of the other.

Boehm (1962) found that academically gifted students exhibited evidence of subjective responsibility earlier than did students of average intelligence. In a different study he found that academically gifted subjects were more able to make intention based judgments, regardless of the outcome (of the dilemma). Subjective responsibility was consistent in above average intelligence subjects. The subjects were 222 Brooklyn children between the ages of 6 and 9. Another factor that was reported is that children of upper-middle class could also make more intention based judgments. (Joosse, 1982)

Also of concern to the present study is the difference there reportedly is between the moral reasoning levels for hypothetical dilemmas and for practical dilemmas. A few studies that reported lower reasoning on practical dilemmas are referred to here. Levine (1976) found that adolescents who scored at stage 4 on hypothetical dilemmas, tended to score more often at stage 3 when resolving dilemmas that involved best friends or mothers. Buttner and Seidenberg (1973) found that students given political or ideological conflicts resolved them at higher stages than did college students who were given social or honesty conflicts.

Blotner and Bearson (1984) found some evidence of a relationship between moral reasoning and altruistic behavior. But they also noted there was a difference on practical and hypothetical dilemmas with a higher level of reasoning on the hypothetical. However they consider the possibility of correlation existing in a staggered stage relation held consistently through development. That is, there may be a consistent lag in the development of the ability to reason on practical dilemmas.

The notion of a staggered stage is appealing but it cannot account for the occurrence of correlation between hypothetical and practical dilemma resolution found in some studies. Sumpter and Buttner (1978) found no discrepancy among college students' reasoning on hypothetical and on practical situations. Also, Bischoff (1977) never found a difference in reasoning between hypothetical and practical dilemmas.

There do not appear to be studies that tested gifted adolescents for practical and hypothetical moral reasoning, to determine whether such discrepancy occurs with gifted subjects as well. Reported next are two important studies on adolescents. The focus of both studies is on self-created dilemmas that determined what kind of dilemmas adolescents are concerned with. One group was of gifted adolescents and the other was a general population sample of adolescents.

Nicholas Colangelo (1982) completed a study that attempted to determine the type of moral problems that were of importance to gifted adolescents. His subjects were 125 gifted students in grades 9 to 12. The students were asked to create written stories about moral problems that they considered important and to resolve the problems that they created. The students had not been given examples nor were they given definitions. The majority of the subjects were white middle and lower-middle class across eleven schools in mostly rural Wisconsin.

The prototype for this study was a similar one completed by Yussen (1977). Yussen studied the type of dilemmas that adolescents considered important. He had 149 subjects, in grades 7, 8, and 9, 12. These subjects were not identified as gifted. The subjects were asked to create their own moral dilemmas. They were not asked to solve them.

Colangelo expected that gifted adolescents would create and solve different dilemmas than had Yussen's group, by nature of their advanced thinking skills. However, their dilemmas had more in common with Yussen's group than with Kohlbergian dilemma stories. Like Yussen's, Colangelo's subjects wrote about personal moral conflicts between individuals and not about life-law dilemmas, nor about family relations (although some did). Like Yussen's, almost all of Colangelo's subjects wrote in protagonists subsidiary character of the same sex as themselves.

The problems that were created in Colangelo's group mainly involved friends (53%) and 92% of the subjects were able to resolve their dilemmas; 55% gave a social perspective in the resolutions (grade 9, 10), and 45% gave a personal perspective (grade 11, 12). The prominent issues chosen to write about were (53%) of friends or relationships. The gifted rarely wrote family related (6%) and life and death (5%) issues. Yussen had similar results. Some of the gifted used themselves as the protagonists (5%) and some (25%) said what they would do (personalized). How to prevent the problem was offered as a solution by 28%. Self concept was the concern for 10% of the gifted subjects.

Colangelo was unable to rate the level of reasoning in the resolutions offered by the subjects as there was no system of structure that could be used as a standard for assessing the responses. The dilemmas created by the subjects were not standardized, had no previously identified determiners (standard questions) of (moral) stage thinking. The problems and solutions gathered from the gifted subjects were varied such that they could not be compared to Yussen's group on a developmental scale, only on their similarities of topics of importance for adolescents. Yussen did not have his subjects resolve their dilemmas. And, Colangelo was not able to compare the subject-created practical dilemmas to Kohlbergian dilemma resolution ability.

The majority of studies concerning the comparison of moral reasoning ability on practical vs hypothetical dilemmas have reported that higher reasoning occurs on hypothetical dilemmas. This seems to be the case with adolescents of the average population as well.

There is evidence that the gifted develop faster cognitively, acquiring formal operations sooner than average individuals. There is evidence that gifted students have greater potential for sensitivity of others' perspectives. With those advantages it would seem likely ~~that~~ the gifted child could engage in role-taking experiences earlier and perhaps to greater advantage for increased moral development.

It is evident with Colangelo's study that gifted adolescents consider personal dilemmas most important. It would be expected that gifted subjects would give practical dilemmas, particularly of a personal or peer nature, their most careful considerations, utilizing all of the skills noted above.

This study was designed to determine whether that is the case. This study attempts to determine whether there is a discrepancy in the level of moral reasoning, by gifted adolescents, on hypothetical and on practical moral dilemmas.

Hypotheses

Ho: 1 There will be no significant difference between the sociomoral reflection level on hypothetical moral dilemmas and peer-oriented moral dilemmas.

Ho: 2 There will be a significant difference between the sociomoral reflection level on hypothetical moral dilemmas and peer-oriented moral dilemmas with the hypothetical moral dilemmas yielding a higher level of sociomoral reflection.

Ho: 3 There will be a significant difference between the sociomoral reflection level on hypothetical moral dilemmas and peer-oriented moral dilemmas with the peer-oriented moral dilemmas yielding a higher level of sociomoral reflection.

CHAPTER THREE

Method

Sample

The sample used for this study consisted of voluntary school-board identified academically gifted adolescents in grades 7, 8, and 9, from two different junior high schools. The range of intelligence scores (IQ) for the subjects was from 130 to 145, with one slightly higher. A total of 50 scorable pairs of test results were obtained. Of this number, 22 were female and 28 were male. The age range was from 12 to 14 years. There were 9 grade seven, 19 grade eight, and 22 grade nine students who participated in this study.

Variables

The experimental variables are the sociomoral test forms and the scores attained on the tests. The independent variables will be the two test forms: hypothetical dilemmas (SRM) and peer-oriented dilemmas (researcher-designed test). The SRM test (hypothetical dilemmas) results will form the base data. This form is held constant across all subjects, and ages, in the study. The researcher-designed form is also held constant for all subjects but there are some changes to the content. The effect of that change, the score attained by subjects on the researcher-designed test, is the dependent variable. This is the score of interest to this study. When the moral dilemmas are changed to peer-oriented from hypothetical, what is the effect on the scores?

Materials

Under this heading both instruments used will be described however the base test instrument (SRM) will be discussed first and the validity and reliability for that test will be given for easier reference when discussing the researcher developed instrument.

Base data measurement instrument. To collect base data to which the experimental data could be compared, the Sociomoral Reflection Measure (SRM) was used. This is an instrument designed by John Gibbs and Keith Widaman (1982), that uses Kohlbergian hypothetical dilemmas. Sociomoral reflection is described by the authors of the instrument as thinking that "...concerns the justifications of one's sociomoral decisions and evaluations" (p. 23).

The SRM instrument has an A and a B form. For this study, Form A (see Appendix A) was used to gather the base data. The SRM is a group administrable paper and pencil test that contains all of the necessary instruction for the subjects. In this instrument there are two moral dilemmas. Each one elicits responses to different norms. In total, the two dilemmas secure responses to eight norms: affiliation; life; law/property; legal justice; conscience; family affiliation; contract; and property. Responses to questions on these norms fall into categories that are referred to as aspects. There are generally six aspects associated with each moral stage for each norm. The aspects, in turn, have several criterion justifications under each (aspect). The criterion justifications (CJs) are what the subjects' responses are matched to for stage assessment. What the subject says (means) falls under an aspect of a stage and can be rated.

The SRM elicits responses to specific norms. That is, a question is designed to obtain the subject's evaluation of the value of life, for example, and also requests the subject to justify that evaluation. That justification is what is of interest to the person rating the responses. For illustrative purposes, an excerpt from a typical base test (SRM, Form A) is presented.

In the first dilemma, the problem faced by Heinz, whose wife needs a drug that he cannot afford, is the choice between saving a life and stealing the drug. This is then varied, in order to elicit deeper thinking about the dilemma of stealing versus life.

4a. What about for a stranger? How important is it to do everything you can, even break the law, to save the life of a stranger?
very important/important/not important (circle one)

4b. Why is that very important/important/not important (whichever one you circled)?
"It does not matter who is dying. One still should do all one can to save the life of another human being."

The response, 4b, is what is rated by referring to the manual--chapter 6, Norm 2: Life (Gibbs/Widaman, 1982, pp. 77-91). Through prior rater training (provided by the SRM manual) and familiarization with the rating manual, the example response will be assessed at stage 3/4 and in the category of aspect 5 (generalized caring). Under this aspect happen to be five criterion justifications (CJs). These are examined for a match with the subject's response.

In this one example the match is with the second CJ.

> b. a person's life is more important than (satisfying this druggist's) greed; (because) we are all human beings; (because) you should have compassion on a fellow or another human being; (or because) you should care about society or humanity. (Gibbs/Widaman, SRM, 1982, p. 89)

The match for the response above is "another human being". Thus, for this example response to the life norm, the rating sheet will show: q.4b, aspect 5, b (CJ) and level 3/4. No comment entered as no particular orientation is applicable for this set of justifications. (Refer to Appendix C)

When the entire protocol has been rated, the levels are calculated. The indices used for the SRM rating are explained briefly here. Two primary indices are attained: one is the modal (most frequent) stage, and the other is called the Sociomoral Reflection Maturity Score (SRMS). The SRMS is a number attained through a mathematical operation on the stage numbers determined during the rating of responses. This number (SRMS) is used to locate the secondary index, the global stage, along a 10 point scale between 100 and 400. (Gibbs/Widaman 1982, p. 51) To illustrate, a typical test rating is shown. (Refer to appendix C for an example of a completed rating sheet.)

A typical protocol rating sheet, from which the above example may have come from, would have the highest score for each norm question(s) indicated (in Appendix C they are circled) and they could be scores such as these:

Norm 1	Affiliation	3 (stage)	Norm 5	Conscience	2/3
2	Life	3/4	6	Family Affiliation	3
3	Law/property	3	7	Contract	3
4	Legal justice	3/4	8	Property	2/3

Next, weightings must be calculated by assigning two points for a pure stage (ie.3) and one point for a stage represented in a transition stage (ie. 2/3). For the stages rated on the eight norms above the weightings would be calculated as follows:

stage	weighting	
1	0	(there was none)
2	2	(1 point for each 2/3 split)
3	12	(total points, pure & split)
4	2	(1 for each of the 3/4 split)

The next step is to multiply the stage number by the weighting assigned that stage. The sum of the products is then divided by the sum of the weightings and that will be multiplied by 100 to arrive at the SRMS score.

stage		weighting	product
1	x	0	0
2	x	2	2
3	x	12	36
4	x	2	8
		16	48

$$\frac{48}{16} = 3.00 \times 100 = 300\text{SRMS}$$

Using the SRMS score and the 10 point scale below, the global stage can be determined.

100-125---------- stage 1
126-149---------- stage 1(2) major-minor stage
150-174---------- stage 2(1) major-minor stage
175-225---------- stage 2
226-249---------- stage 2(3) major-minor stage
250-274---------- stage 3(2) major-minor stage
275-325---------- stage 3
326-349---------- stage 3(4) major-minor stage
350-374---------- stage 4(3) major-minor stage
375-400---------- stage 4

The procedure described above is used to determine the stages for each subject (protocol). Whenever there is a protocol that has more than three unscorable norms it is not considered reliable and is eliminated from the data. There are a number of reasons a response may be unscorable. There may be: tautologies, opinions, anecdotes, alternatives, exhortations, reiteration of the question, and non decipherable sentences (Gibbs/Widaman, 1982, pp. 49, 54-56). Also noted by the authors of the SRM was the case of disavowal, a statement is made and then rejected. Such a response should not be scored. Responses that match CJs that span more than three adjacent levels are not scorable either.

Validity

The SRM is a derivative of Kohlberg's Moral Judgment interview (MJI) test of moral development. Concurrent validity of the SRM with the MJI was established. Using the indices modal stage, global stage, and correlation, the results were as follows: exact modal stage agreement 75.4% and 100% of the modal discrepancies were within one modal stage; exact agreement for global stage 38.6% and with discrepancies within 1/3 global stage considered, agreement was 78%; SRMS correlation was .85 and .50 with age partialled out. The concurrent validity with the MJI lends construct validity as well (the MJI has twenty years of construct testing history). Nonetheless, the SRM was also tested for construct validity through correlation with socioeconomic, age, and grade variables as well as for the detection of change after intervention. There was a highly significant correlation (in the 70s) between the SRM and age and grade, but only .23 for SES. There were no differences by gender in any of the samples tested (Gibbs/Widaman, 1982).

Reliability

The reliability of the Gibbs and Widaman (1982) SRM was assessed four ways: test-retest, internal consistency, parallel-form, and interrater. They reported results for both test-retest and parallel-form as similar with exact modal stage agreement an average of 71% and agreement within one modal stage 100%. For global stage, exact agreement was 60% for the retest and 48% for the parallel. But with discrepancies within 1/3 global stage, agreement was in the 90s for both retest and parallel forms.

The reported correlations between SRMS scores for the test-retest and for parallel-form was high. In the 70s for parallel and in the 80s for the retest. The mean signed differences of SRMS were negligible. Absolute SRMS differences averaged slightly under 20 points. The authors of the SRM concluded that the SRM is consistent across test times even using a parallel-form (Gibbs/Widaman, 1982).

Interrater reliability is an important aspect of the SRM instrument. The manual contains rater self-training, and a provision for determining interrater reliability with the authors of the SRM, John Gibbs and Keith Widaman, both highly trained raters. This feature makes the instrument accessible to more researchers than does the alternative Harvard training of the Kohlberg, MJI and the Standard Issue Scoring method. Gibbs and Widaman reported that raters, who had completed the self-training performed as well as trained raters who had received both the self-training materials and tutoring sessions. The correlations for the raters were in the 80s.

The exact global agreements were in the 70s, and for all discrepancies within 1/3 global stage, percentage of agreement was in the 90s. For modal stage agreement, it was in the 70s for exact, and 100% for within one modal stage (Gibbs/Widaman, 1982).

Researcher-designed instrument. The instrument used to collect data on the experimental variable is shown in Appendix B. This instrument was researcher-developed based on the SRM instrument used for the base data collection. Indeed, it follows exactly the SRM development of the dilemmas. In all respects it is the same but for some change in the content of the problem (dilemma) stories. The protagonists were changed to peers. The circumstances of the dilemmas were adapted for plausible peer-protagonist situations but retained the same dilemma (issue faced). The dilemma for problem one is still a life-steal situation. The questions posed after the problem story are exactly the same, no changes were necessary. The same questions could be answered from a peer perspective rather than from the perspective of Heinz (a married man). The same 'norm-tagged' questions were being responded to. The content tested, (the responses to these particular norms) can be assumed to be the same. The variations to the dilemmas that form part of the questions that follow the dilemma were unchanged. (Refer to Appendix B and A to compare the two test forms.

For problem two of the researcher-developed test the model used was problem two of the SRM parallel-form B (see Appendix B).

Problem two of Form A did not adapt as well for peer protagonists as did Form B, problem two. As with the researcher designed problem one dilemma, problem two dilemma was created with peer protagonists but retained the issue of promises and property. None of the subsequent questions were changed, they remained 'norm tagged' the same as before the protagonists were changed to peers. It may therefore be assumed that responses to the same norms were elicited. To compare the two instruments, refer to Appendix B for the researcher-designed form. Also in Appendix B is the model problem two from the SRM Form B, for comparison with the researcher-designed problem two.

Procedure

The paper and pencil tests described in this chapter were group administered at two different junior high schools. The two schools formed the two broad groupings A and B. Within each school subjects were subgrouped by grade to maintain age-related data separate. The study depended on voluntary participation and as such the groups are not evenly distributed.

The two test forms, SRM (base data), and the researcher-designed test, were administered approximately six weeks apart at each school. All participants in a school wrote the test on the same day for each test time; no discussion of the test could occur across grades. The order in which the two tests were administered was not the same for the two schools. One school wrote the SRM first, the other school wrote the researcher-designed test first.

The tests were objective with respect to anonymity. Each test form was identified only by grade, age, and gender. None of the subjects were known to the writer.

The test forms contain written instructions for completing the test and no additional instructions were given. During the first test administration, at each school, with each grade, the written instructions were read aloud. Subjects were reminded that the test was anonymous, and that there were no particular correct/incorrect answers. At the second test administration, no instructions were given other than to remind subjects to read the instructions about answering the questions as fully as possible. Students were thanked for their participation. At no time were they assisted in responding. No examples were given nor was any discussion held with classes nor individuals. Whenever a student asked for clarification, reiteration of the question as printed was usually sufficient for comprehension. If not, the subject was advised to respond to what they thought the question intended.

CHAPTER FOUR

Results

The purpose of the study is to compare the sociomoral reflection score attained by gifted adolescents on Kohlbergian hypothetical dilemmas and peer-oriented dilemmas. This chapter will present the data obtained in table form and in graphs. The analysis is primarily one of percentage of agreement between the two test scores for modal stage and global stage. The SRMS scores are also used for analysis: the absolute difference for the group on the two tests; the mean signed difference for the two tests; and the correlation is given.

Before presenting the findings some general observations about the data are noted. First, the subjects were broadly grouped into groups A and B according to the school they were drawn from. The order of the test administration was reversed from one school to the next and it therefore becomes important to separate the data for comparison of the effect the second test writing may have had on the results.

The two larger groups were subgrouped, according to grade, in order to keep similar-aged subject data together. Changes occur during certain age periods and age-homogeneous groups facilitate such data presentation. The number of subjects per group is not consistent as the study depended on voluntary participation and on subjects being present at both test times. There are fifty scored test pairs (both tests). An additional seven at one school and five of the other school were incomplete and unscorable: these are not included in the data reported.

An overall age trend is noted. As age increased, there was an upward trend in global stage on both the SRM and the researcher-designed instruments. For example, global stage 3 decreased in frequency with increasing age of subject. On the SRM test, subjects age 12 scored at stage 3 73% of the time: at age 13 stage 3 appears 71% of the time, and by age 14, 50% of those subjects scored at stage 3. There is even more of an age trend with the researcher-designed test. At age 12, 80% scored at stage 3: at age 13, 64% did, and by age 14, only 38% of those subjects scored at stage 3. The greatest decrease in stage 3 frequency occurred, for both tests, between age 13 and 14; a 21% and a 29% drop for SRM and researcher-designed respectively.

Moral development is a developmental process as discussed in chapter two. The trend reported here is expected to appear with gifted subjects as well as with the general population. The gifted may have an accelerated rate of development but it is expected that they would progress through the same sequence of stages. It is not expected that the frequency of stage 3 would decrease as rapidly for adolescents of the general population, but this can only be determined positively by testing such a population.

Another consideration to be mentioned is the question of gender. Of the fifty subjects scored, twenty two were female, and twenty eight were male. However, the numbers were not evenly distributed across all groups. Of the groups that did have an almost even distribution of both sexes, there were no differences in test scores. In order to make an accurate comparison by gender, a study would have to be carried out matching the subjects for age, gender, and level of giftedness. The literature review, however, suggests there would be no difference.

The rating of the test responses was completed by only myself. However, all of the tests were rated two times to determine any change or error. Prior to rating the protocols it was necessary to undertake a lengthy self-training and practice using the SRM manual which provides rater self-training material and instruction. This process was undertaken twice; initially when the instrument was considered for this study to determine the feasibility of the self-training, and again just prior to the actual ratings for this study. The interrater reliability is therefore high, a correlation of .99 with the authors of the instrument, John Gibbs and Keith Widaman, which is determined from SRMS scores for this rater and those of the above authors (using protocols in Appendix C of the SRM manual). There are thirteen complete protocols to be completed after training. Scores on these can be compared to the scores attained on the same protocols by the authors of the instrument.

Statistics

The statistics presented for the five groups is primarily percentage of agreement between the two test scores of the modal stages and between the two test scores of the global stages. These percentages of agreement are calculated in two ways: whether they agree, across tests, exactly with no change, and also, when there is change, what is the percentage of agreement within a certain boundary of variation or discrepancy between test scores.

With modal scores the boundary that is used in the SRM manual, is 'within one stage'. Modal score is the most frequently represented score and it may take only one norm stage change to affect the modal stage (ie. from 3 to 4). Exact modal agreement does not allow for any discrepancy across tests.

With global stage there also is exact agreement, no discrepancy allowance. The second percentage of agreement that can be calculated for global stages across tests is the percentage of agreement with discrepancy within 1/3 global stage. That is movement or change to only the adjacent global stage which is 1/3 stage (see the 10 point range scale in chapter three).

The other statistics presented for the data in this study use the SRMS scores. This is a score arrived at through a mathematical manipulation of the stages rated for each of the norms (see the rating sheet in Appendix C). The first SRMS statistic presented in the tables is the absolute difference of SRMS across tests. The other is the mean signed difference. The range used by the SRM manual is 20 points for the absolute difference. The last statistic presented in the tables is the pearson correlation for the SRMS scores across tests.

A level of significance was set at .05 for this study. The probabilities were calculated for each group and are noted here. For the five groups the probability levels were: .027, .002, .004, .018, .017. All are under .03 level of probability that the results would occur by chance.

Group B, grade 8, had 13 subjects. Refer to Table 1 and Figure 1. Modal stage for this group ranged from 2 to 3 on the base data and from 2 to 3/4 on the test data. Exact agreement for modal stage across the two tests was 62% for this group. Global stage ranged from 2(3) to 3 on the base data and from 2(3) to 4(3) on the test data. Exact agreement for global stage was 54%, but it was 100% agreement when discrepancies within 1/3 global stage are included.

The SRMS absolute difference is 20.8 points, and the signed mean difference is -15.92. The minus sign indicates that the second column, the test data, is greater than the first column, the base data (see Table 1). There was upward change in the test data. The SRMS correlation for this group is .55 and significant. There were six changes upward for this group. The more changes there are, the lower the correlation.

Table 1 Group B Grade 8 n=13

	Base Data			Test Data		
Subject	Modal	SRMS	Global	Modal	SRMS	Global
1	3	300	3	3/4	331	3(4)
2	3	325	3	3/4	338	3(4)
3	2/3	269	3(2)	3	319	3
4	2/3	250	3(2)	3	321	3
5	3	306	3	3	306	3
6	3	325	3	3	306	3
7	3	313	3	3	313	3
8	3	300	3	3	300	3
9	3	275	3(2)	3	319	3
10	3	319	3	3/4	331	3(4)
11	3	287	3	3	300	3
12	2	233	2(3)	2	238	2(3)
13	3	294	3	3	281	3

Modal: Most frequent stage represented

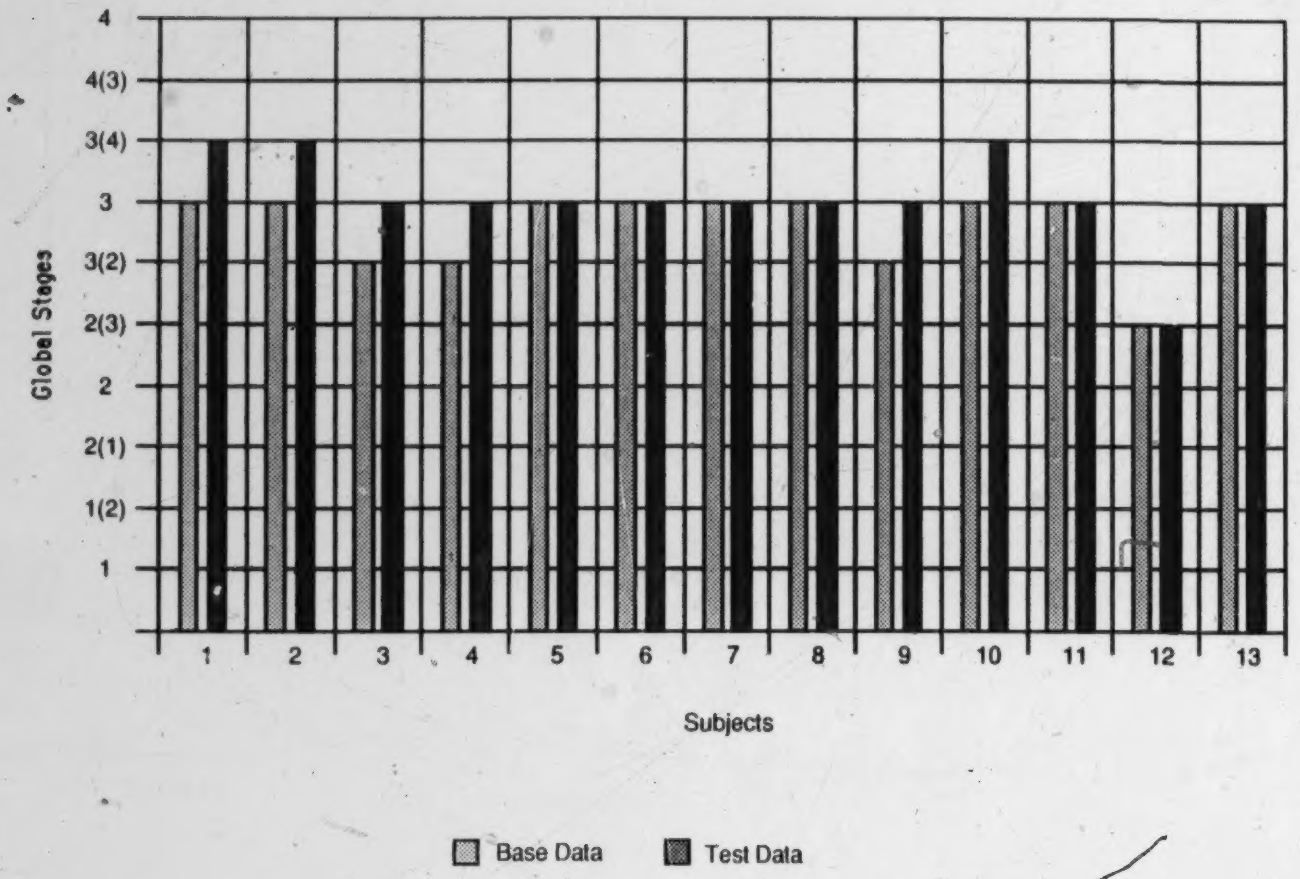
SRMS: Sociomoral Reflection Maturity Score

Global: Stage on a 10 point interval scale indicating major–minor stages

For this group:

Percentage agreement within $^1/3$ stage global	100%
Percentage agreement exact for global	54%
Percentage agreement exact for modal	62%
Percentage agreement within 1 stage modal	100%
Absolute mean difference SRMS	20.85
Mean signed difference SRMS	-15.92
Correlation	.55

Figure 1 Group B Grade 8 n=13



Group B, grade 9, had 9 subjects. Refer to Table 2 and Figure 2. Modal stage for this group ranged from 3 to 4 on the base data and from 3 to 4 on the test data. Exact agreement for modal stage across the two tests was 78% for this group. Global stage ranged from 3 to 4(3) on the base data and from 3 to 4(3) on the test data. Exact agreement for global stage was 78%, but it was 100% agreement when discrepancies within 1/3 global stage are included.

The SRMS absolute difference is 9.44 points, and the signed mean difference is 2.11. There were only two changes upward. The SRMS correlation for this group is .84, highly correlated.

Table 2 Group B Grade 9 n=9

	Base Data			Test Data		
Subject	Modal	SRMS	Global	Modal	SRMS	Global
1	3	300	3	3	281	3
2	3	325	3	3	336	3(4)
3	3	328	3(4)	4	350	4(3)
4	4	350	4(3)	3/4	350	4(3)
5	3	306	3	3	306	3
6	3	343	3(4)	3	331	3(4)
7	3	321	3	3	313	3
8	3	321	3	3	321	3
9	3	319	3	3	306	3

Modal: Most frequent stage represented

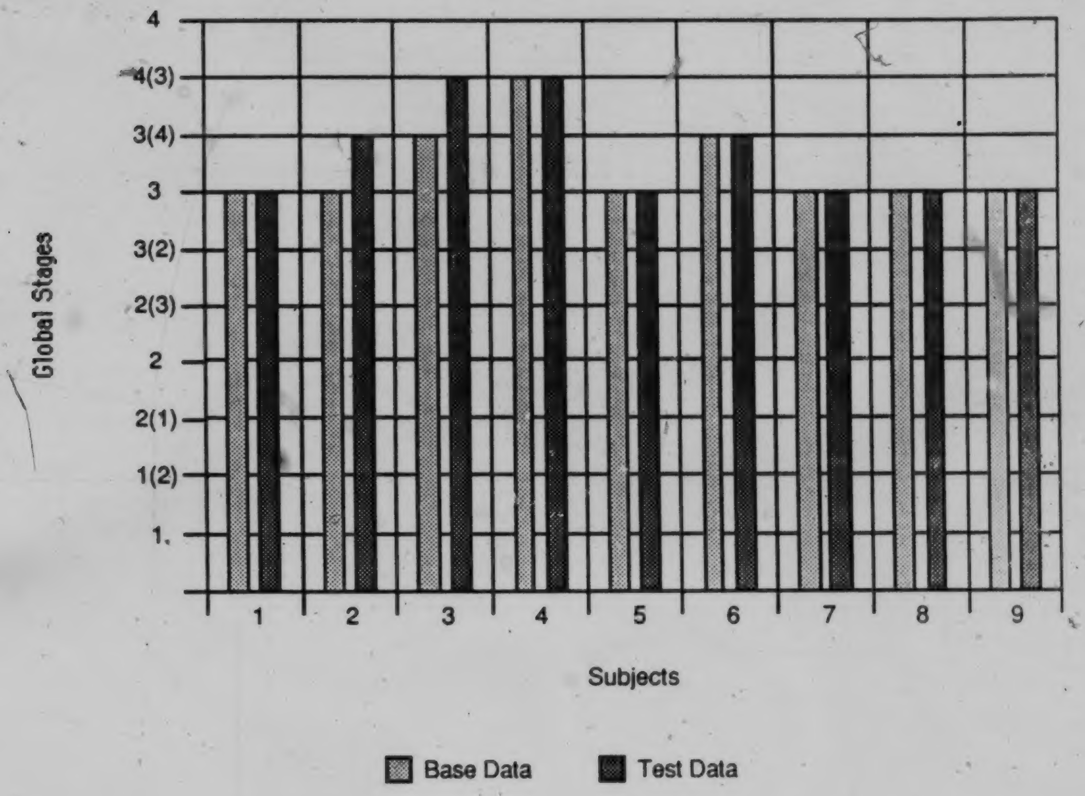
SRMS: Sociomoral Reflection Maturity Score

Global: Stage on a 10 point interval scale indicating major–minor stages

For this group:

Percentage agreement within $^{1}/3$ stage global	100%
Percentage agreement exact for global	78%
Percentage agreement exact for modal	78%
Percentage agreement within 1 stage modal	100%
Absolute mean difference SRMS	9.44
Mean signed difference SRMS	2.11
Correlation	.84

Figure 2 Group B Grade 9 n=9



Group A, grade 9, had 13 subjects. Refer to table 3 and Figure 3 Modal stage for this group ranged from 3 to 4 on the base data and from 3 to 4 on the test data. Exact agreement for modal stage across the two tests was 54% for this group. Global stage ranged from 3 to 4(3) on the base test and from 3 to 4(3) on the test data. Exact agreement for global stage was 62%, but it was 100% agreement when discrepancies within 1/3 global stage are included. There were five changes upward on the test data for this group.

The SRMS absolute difference is 8.39 points, and the signed mean difference is -4.54. The SRMS correlation for this group is .69, also a significant correlation.

Table 3 Group A Grade 9 n=13

	Base Data			Test Data		
Subject	Modal	SRMS	Global	Modal	SRMS	Global
1	3	325	3	3	338	3(4)
2	3	338	3(4)	3	331	3(4)
3	3/4	331	3(4)	3	331	3(4)
4	3	343	3(4)	3/4	350	4(3)
5	4	363	4(3)	4	356	4(3)
6	3	306	3	3	331	3(4)
7	4	350	4(3)	3/4	350	4(3)
8	3	336	3(4)	3	338	3(4)
9	3	313	3	4	314	3
10	3	314	3	4	344	3(4)
11	3	343	3(4)	3	338	3(4)
12	3	325	3	3	319	3
13	3	344	3(4)	4	350	4(3)

Modal: Most frequent stage represented

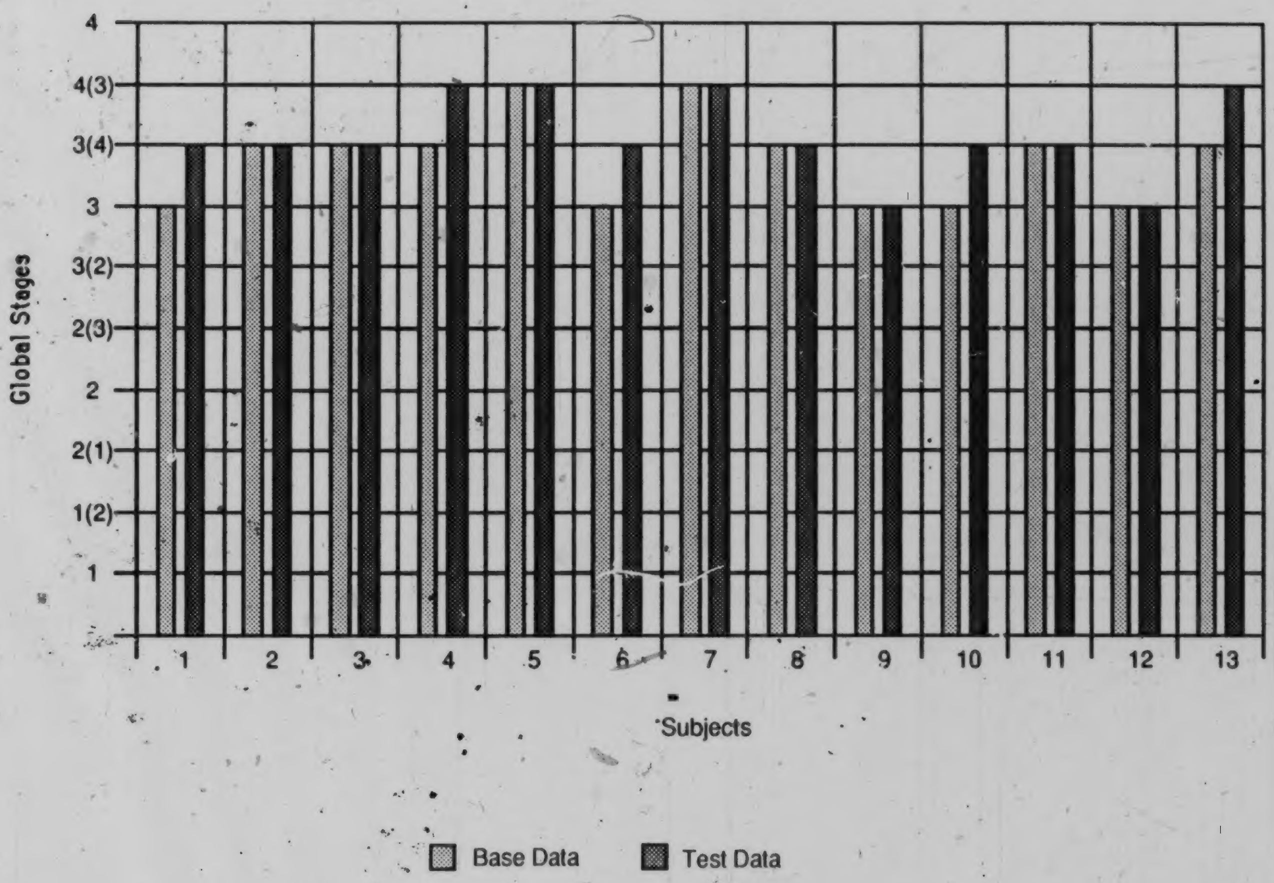
SRMS: Sociomoral Reflection Maturity Score

Global: Stage on a 10 point interval scale indicating major–minor stages

For this group:

Percentage agreement within 1/3 stage global	100%
Percentage agreement exact for global	62%
Percentage agreement exact for modal	54%
Percentage agreement within 1 stage modal	100%
Absolute mean difference SRMS	8.385
Mean signed difference SRMS	-4.538
Correlation	.69

Figure 3 Group A Grade 9 n=13



Group A, grade 8, had 6 subjects. Refer to Table 4 and Figure 4. Modal stage for this group ranged from 3 to 4 on the base data and from 3 to 3/4 on the test data. Exact agreement for modal stage across the two tests was 83% for this group. Global stage ranged from 3 to 4(3) on the base data and from 3 to 4(3) on the test data. Exact agreement for global stage was 83%, but it was 100% agreement when discrepancies within 1/3 global stage are included. There was one change upward on the test data for this group.

The SRMS absolute difference is 15 points, and the signed mean difference is -2.00. The SRMS correlation for this group is .84, and very high.

Table 4 Group A Grade 8 n=6

	Base Data			Test Data		
Subject	Modal	SRMS	Global	Modal	SRMS	Global
1	3	313	3	3	329	3(4)
2	3	307	3	3	288	3
3	3	288	3	3	306	3
4	3	307	3	3	306	3
5	3	277	3	3	294	3
6	4	369	4(3)	3/4	350	4(3)

Modal: Most frequent stage represented

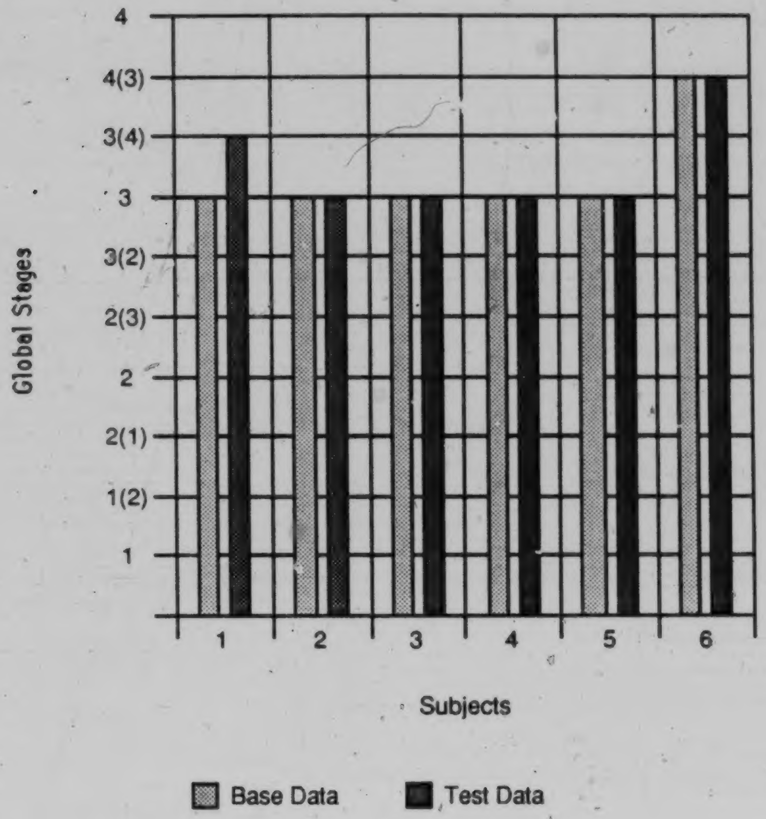
SRMS: Sociomoral Reflection Maturity Score

Global: Stage on a 10 point interval scale indicating major–minor stages

For this group:

Percentage agreement within 1/3 stage global	100%
Percentage agreement exact for global	83%
Percentage agreement exact for modal	83%
Percentage agreement within 1 stage modal	100%
Absolute mean difference SRMS	15.00
Mean signed difference SRMS	-2.00
Correlation	.84

Figure 4 Group A Grade 8 n=6



Group A, grade 7, had 9 subjects. Refer to Table 5 and Figure 5. Modal stage for this group ranged from 2 to 3 on the base data and was only 3 on the test data. Exact agreement for modal stage across the two tests was 78% for this group. Global stage ranged from 2 to 3 on the base data and was only 3 on the test data. Exact agreement for global stage was 67%, but it was 89% when discrepancies within 1/3 global stage are included. There was three changes upward on the test data for this group: two were 1/3 stage and one was 2/3 global stage upward.

The SRMS absolute difference is 17.66 points, and the signed mean difference is -7.88. The correlation is high at .71.

Table 5 Group A Grade 7 n=9

	Base Data			Test Data		
Subject	Modal	SRMS	Global	Modal	SRMS	Global
1	3	280	3	3	300	3
2	3	314	3	3	300	3
3	3	279	3	3	275	3
4	2	262	3(2)	3	300	3
5	2	225	2	2	258	3(2)
6	3	287	3	3	281	3
7	3	292	3	3	286	3
8	2	240	2(3)	3	264	3(2)
9	3	300	3	3	286	3

Modal: Most frequent stage represented

SRMS: Sociomoral Reflection Maturity Score

Global: Stage on a 10 point interval scale indicating major–minor stages

For this group:

Percentage agreement within ^{1}/3 stage global 89%

Percentage agreement exact for global.....................................67%

Percentage agreement exact for modal.......................................78%

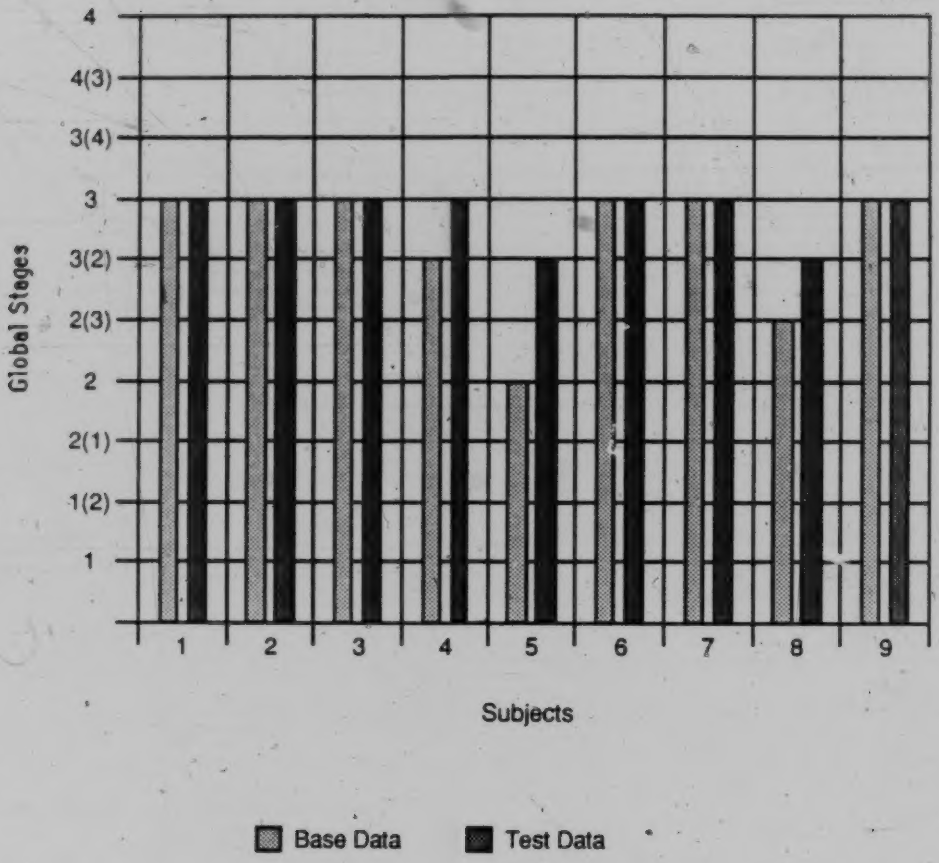
Percentage agreement within 1 stage modal 100%

Absolute mean difference SRMS..17.667

Mean signed difference SRMS...-7.889

Correlation .... .71

Figure 5 Group A Grade 7 n=9



Summary

For the five groups the SRMS correlations were: .55, .69, .71, .84, and .84. The higher the magnitude, the closer the relationship between the two test scores which means fewer changes across the two tests. The lower correlations are found in groups that had more changes across the two tests. All change across the two tests was upward on the test data (the peer-oriented test). Of the 50 subjects, 17 changed upward on the test data (34%) and 33 of the 50 scores remained unchanged (66%). The correlation coefficients were all positive between .5 and .8. The correlation corresponds to the number of change per group from 6 changes and 1 change respectively. In no instance was there a downward change thereby rejecting Hypothesis 2 that peer-oriented test scores would be lower than base test scores. Hypotheses 1 is also rejected; the scores across the two tests did not remain exactly the same for all subjects. However, Hypothesis 3 was tenable: the test data scores (peer-oriented) were higher than the scores on the base data (hypothetical).

It appears there is a relationship between the two sets of data. The level of significance for this study was set at .05 and the probabilities for the groups were all under .03 probability of the results occurring by chance.

On the basis of the finding of this research study as presented, it may be concluded that with gifted adolescents there is a close, positive, relationship between the sociomoral reflection measure on hypothetical and on peer-oriented moral dilemma resolution.

CHAPTER FIVE

Discussion

The results of the study prove that gifted adolescents in the sample could resolve practical, or peer-oriented, moral dilemmas at a level equal to that for hypothetical dilemmas. The review of literature indicated that studies of general population samples, including adolescents, tended to score lower on the resolution of practical moral dilemmas than on hypothetical (Kohlbergian) dilemmas. However, it was also noted from the review of literature that it can be expected that academically gifted students have the cognitive development, the role-taking ability, as well as the sensitivity to justice (deemed prerequisites by Kohlberg) for resolving moral dilemmas at a higher than average level. The subjects in this study did have an equally high score on both types of tests. This study does not determine the degree to which sensitivity to justice and role-taking ability is related to IQ or whether these factors are or can become part of the dilemma resolving ability of general population adolescents.

This study used peer-oriented dilemmas as the practical dilemmas. Two other studies reported in the literature determined that adolescents prefer peer-oriented dilemmas such as they might encounter in their own lives. This was true of both the general population adolescents of Yussen's (1977) study, and of Colangelo's (1982) study of the gifted. In each of those studies, subjects were asked to create their own moral dilemmas. However, neither of these two studies were designed to conclude what the practical dilemma resolution ability of their sample was. Yussen did not have his subjects resolve the dilemmas they created. And, Colangelo was unable to rate the self-created (non standardized) dilemmas that were resolved by his group.

The present study was an attempt to overcome these problems in order to collect data through an instrument that was standardized, valid, reliable, and group administrable. This was accomplished by using the SRM instrument designed by John Gibbs and Keith Widaman (1982); for the collection of base data. For data on peer-oriented dilemmas, a researcher-designed form was developed following the development of the dilemmas used in the SRM, and addressing the same norms as does the SRM. The similar pattern and development makes the peer-oriented instrument scorable through the use of the SRM manual. Thus, test data can be collected and it may be compared to the base data collected in order to determine the relationship between the two test scores.

The results of the data have been examined and the relationship between the scores on the two tests was found to be positive and close. It may be concluded that for this sample of gifted adolescents there is a close relationship between their resolution of moral dilemmas of Kohlbergian (the SRM) and of peer-oriented type. It is expected that similar results would prevail with similar samples of gifted adolescents.

In considering the factors that possibly bear on the test scores, the parallelism of the two tests used was examined. It might be argued that because the forms are so similar in the manner that the dilemmas were developed that the results would most likely be similar also. However, that argument cannot be supported. Regardless of the order in which the two tests were administered, any variation in scores across the two tests was always upward for the peer-oriented form. Familiarity, due to the parallelism, would increase the likelihood of the second test scores being higher. However, when the second test was the SRM (Kohlbergian) the scores were not higher than on the first test. There were 8 out of 22 subjects that reached a higher score on the peer-oriented form when it was administered first. There were 9 out of 28 who reached a higher score on the peer-oriented form when it was administered second.

Since all of the subjects in this sample of adolescents scored at least as high in the peer-oriented data, it may be due to preference for dealing with peer-oriented dilemmas. This preference was evident in two of the studies reviewed, Yussen (1977), and Colangelo (1982). Or, perhaps, gifted adolescents may be able to resolve these dilemmas at a level equal to that of their hypothetical dilemma resolution by virtue of any or all of the factors mentioned earlier such as intelligence, role-taking ability, and sensitivity to justice.

Another consideration is the socioeconomic factor. It has been reported (Colby, et al., 1983) that there is a closer relationship between socioeconomic level and moral development level scores than between intelligence or even education level and moral development scores (using the MJI). The authors of the SRM instrument, on the other hand, reported a correlation of only .23 between socioeconomic and SRM results. As noted in chapter three, the general socioeconomic level of the two broad groupings, A and B, is dissimilar. Group B is predominantly of middle to upper-middle class professional (parental) background. Group A, on the other hand, is predominantly of middle to lower-middle class working (parental) background. But, group B scores are not higher than group A's on either of the two tests.

There is a cultural difference in the present study. Group B is predominantly of white Canadian culture, while group A is a mixture of white Canadian culture and ethnic Canadian background (predominantly Asian). The scores do not follow the socioeconomic expectations noted above. Perhaps the lower socioeconomic level of group A can be attributed to transition to a new culture by parents of Canadian born ethnic subjects (and most likely so for foreign born subjects) and not a static state of economics. It may also be that socioeconomic level is not a reliable correlate for gifted adolescents.

Possibly, the slightly higher scores for group A, grade 9, on both test administrations is due to the slightly higher IQ scores, averaged for the group, than that of group B, same grade. Due to the confidentiality of the study data, individual IQ scores were not reported, only approximate locations on intervals between 130 and

145, (and one of slightly higher). The widest variance by the largest number (of the two grade 9 groups) would only be approximately five or ten points. However, a study controlling for individual IQ scores would have to be completed in order to more accurately determine the relationship between IQ and sociomoral development scores of gifted adolescents.

Perhaps the varied cultural background of group A offer different input into class discussions of moral issues as curriculum material presents opportunity for such discussion and growth. It is not possible to measure with certainty, the amount or quality of discussion of moral issues that occurs in one group versus the other.

Summary

It was noted in the literature survey that there are critical age periods for (moral) stage change. If this does not occur at the critical change times the change may not occur. If students are unable to (participate, or) experience role-taking and observe higher stage moral reasoning their likelihood of such change in moral reasoning stage may be jeopardized (perhaps more so for the general population). The literature survey points out that gifted students have greater capacity for benefiting from experiences and have greater sensitivity for others and their environment. With the test used in this study, gifted adolescents scored equal to or better on peer-oriented (practical) dilemmas. Other studies with general populations reported a discrepancy between practical and hypothetical dilemma resolution with a lag for practical resolution.

The propensity for this lag combined with the missed opportunity for change (critical ages) could have serious implications for moral development (scope). It becomes imperative then to determine whether role-taking is a factor and whether average students can be 'taught' to experience such role-taking, apply moral reasoning and benefit from higher reasoning demonstrations for practical dilemma resolution. Perhaps this is a more gradual process for general populations and should be part of curriculum at all grades.

Recommendation for future research

Further evidence of this finding would require testing of the hypothesis on other gifted adolescent groups as well as on adolescents of the general population. This would determine whether there is consistency of equally high scores for both types of dilemmas tested in this study for gifted adolescents, and also whether there would be lower scores on either one of the two types of tests for general population adolescents. It would also be of interest to have a comparison of gifted adolescents with high school students and college students of the general population to determine whether the lag between hypothetical and practical dilemma resolution diminishes with age.

Another test might be devised that would be less similar to the SRM, yet be scorable and standardized. Such a test could be used for practical moral dilemmas that would be equally salient for adolescents and for college students. This would determine the effect, if any, that the similarity of the two tests used in this study had on the results. Finally, studies could be completed that control for SES, age, gender, and IQ. Such studies may begin to isolate the determining factors in the resolution of practical moral dilemmas.

Beyond proving the hypothesis that gifted adolescents tested have the capacity to resolve moral dilemmas of a practical nature at as high a level as they do hypothetical dilemmas, new questions arise. If gifted adolescents do resolve practical moral dilemmas equally well, consistently, and general population adolescents do not, what factors contribute to this? Are there factors that can be manipulated by educators for the enhancement of such ability among general population adolescents? Or, could such factors be currently manipulated in the negative by nature of the educational process, perhaps escaped by some of the gifted? The determining factors that may be isolated through future research will require consideration in all curriculum development and by teacher training institutes.

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APPENDIX A

- SRM measurement instrument Form A
- rating sheet

John C. Gibbs/Keith F. Widaman, SOCIAL INTELLIGENCE: Measuring the Development of Sociomoral Reflection, (c) 1982, pp. 192-211. Reproduced by permission of Prentice Hall, Inc., Englewood Cliffs, New Jersey.

SOCIAL REFLECTION QUESTIONNAIRE

Instructions

In this booklet are social problems with questions for you to answer. We are asking the question not just to find out your opinions about what should be done in the problems, but also to understand why you have those opinions. Please answer all the questions, especially the "why" questions. Feel free to use the backs of the pages to finish writing your answers if you need more space.

Age: ____________________

Sex: (circle one): male/female

Date: ____________________

Form A

5

PROBLEM ONE

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist wanted people to pay ten times what the drug cost him to make.

The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about half of what the druggist wanted. Heinz told the druggist that his wife was dying and asked him to sell it cheaper or to let him pay later. But the druggist said, "No. I discovered the drug, and I'm going to make money from it." So the only way Heinz could get the drug would be to break into the druggist's store and steal the drug.

Heinz has a problem. He should help his wife and save her life. But, on the other hand, the only way he could get the drug she needs would be to break the law by stealing the drug.

What should Heinz do?

should steal/should not steal/can't decide (circle one)

Why?

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Let's change things about the problem and see if you still have the opinion you circled above (should steal, should not steal, or can't decide). Also, we want to find out about the things you think are important in this and other problems, especially why you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINIONS--EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before." If you can explain better or use different words to show what you mean, that helps us even more. Please answer all the questions below, especially the "why" questions.

1. What if Heinz's wife asks him to steal the drug for her? Should Heinz:

steal/should not steal/can't decide (circle one)?

1a. How important is it for a husband to do what his wife asks, to save her by stealing, even when he isn't sure whether that's the best thing to do?

very important/important/not important (circle one)

1b. WHY is that very important/important/not important (whichever one you circled?

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2. What if Heinz doesn't love his wife? Should Heinz:

steal/not steal/can't decide (circle one)?

2a. How important is it for a husband to steal to save his wife, even if he doesn't love her?

very important/important/not important (circle one)

2b. WHY is that very important/important/not important (whichever one you circled)?

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3. What if the person dying isn't Heinz's wife but instead is a friend (and the friend can get no one else to help)? Should Heinz:

steal/not steal/can't decide (circle one)?

3a. How important is it to do everything you can, even break the law, to save the life of a friend?

very important/important/not important (circle one)

3b. WHY is that very important/important/not important (whichever one you circled)?

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4a. What about for a stranger? How important is it to do everything you can, even break the law, to save the life of a stranger?

very important/important/not important (circle one)

4b. WHY is that very important/important/not important (whichever one you circled)?

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5. What if the druggist just wants Heinz to pay what the drug cost to make, and Heinz can't even pay that? Should Heinz:

steal/not steal/can't decide (circle one)?

5a. How important is it for people not to take things that belong to other people?

very important/important/not important (circle one)

5b. WHY is that very important/important/not important (whichever one you circled)?

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6a. How important is it for people to obey the law?

very important/important/not important (circle one)

6b. WHY is that very important/important/not important (whichever one you circled)?

7. What if Heinz does steal the drug? His wife does get better, but in the meantime, the police take Heinz and bring him to court. Should the judge:

jail Heinz/let Heinz go free/can't decide (circle one)?

7a. How important is it for judges to go easy on people like Heinz?

very important/important/not important (circle one)

7b. WHY is that very important/important/not important (whichever one you circled)?

8. What if Heinz tells the judge that he only did what his conscience told him to do? Should the judge:

jail Heinz/let Heinz go free/can't decide (circle one)?

8a. How important is it for judges to go easy on lawbreakers who have acted out of conscience?

very important/important/not important (circle one)

8b. WHY is that very important/important/not important (whichever one you circled)?

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9. What if Heinz's wife never had cancer? What if she was only a little sick, and Heinz stole the drug to help her get well a little sooner? Should the judge:

jail Heinz/let Heinz go free/can't decide (circle one)?

9a. How important is it for judges to send people who break the law to jail?

very important/important/not important (circle one)

9b. WHY is that very important/important/not important (whichever one you circled)?

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PROBLEM TWO

Joe is a fourteen-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the $40 it cost to go to camp and a little more besides. But just before camp was going to start, his father changed his mind. Some of his father's friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money Joe had saved from the paper route. Joe doesn't want to give up going to camp, so he thinks of refusing to give his father the money.

Joe has a problem. Joe's father promised Joe he could go to camp if he earned and saved up the money. But, on the other hand, the only way Joe could go would be by disobeying and not helping his father.

What should Joe do?

should refuse/should not refuse/can't decide (circle one)

Why?

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Let's change things about the problem and see if you still have the opinion you circled above (should refuse, should not refuse, can't decide). Also, we want to find out about the things you think are important in this and other problems, and especially why you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINIONS--EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before." If you can explain better or use different words to show what you mean, that's even better. Please answer all the questions below, especially the "why" questions.

1. What if Joe hadn't earned the money? What if the father had simply given the money to Joe and promised Joe could use it to go to camp-- but now the father wants the money back for the fishing trip? Should Joe:

refuse/not refuse/can't decide (circle one)?

1a. How important is it for parents to keep their promises about letting their children keep money--even when their children never earned the money?

very important/important/not important (circle one)

1b. WHY is that very important/important/not important (whichever one you circled)?

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2a. What about keeping a promise to a friend? How important is it to keep a promise, if you can, to a friend?

very important/important/not important(circle one)

2b. WHY is that very important/important/not important (whichever one you circled)?

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3a. What about to anyone? How important is it to keep a promise, if you can, even to someone you hardly know?

very important/important/not important (circle one)

3b. WHY is that very important/important/not important (whichever one you circled)?

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4. What if Joe's father hadn't told Joe to give him the money but had just asked Joe if he would lend the money? Should Joe:

refuse/not refuse/can't decide (circle one)?

4a. How important is it for children to help their parents, even when their parents have broken a promise?

very important/important/not important (circle one)

4b. WHY is that very important/important/not important (whichever one you circled)?

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5. What if Joe did earn the money, but Joe's father did not promise that Joe could keep the money?

Should Joe:

refuse/not refuse/can't decide (circle one)?

5a. How important is it for parents to let their children keep earned money--even when the children were not promised that they could keep the money?

very important/important/not important (circle one)

5b. WHY is that very important/important/not important (whichever one you circled)?

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6. What if the father needs the money not to go on a fishing trip but instead to pay for food for the family? Should Joe:

refuse/not refuse/can't decide (circle one)?

6a. How important is it for children to help their parents--even when it means that the children won't get to do something they want to do?

very important/important/not important (circle one)

6b. WHY is that very important/important/not important (whichever one you circled)?

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PROTOCOL STAGE RATING

CODE #: ____________________
FORM: A/B (circle one)
RATER: ____________________
DATE: ____________________

MODAL: ____________________
SRMS: ____________________
GLOBAL: ____________________

Prob-lem	Norm (question)	Question Referent	Aspect Citation	Level	Comments (e.g., Orientation A or B)
One	1: Affil. (1b, 2b, 3b)				
	2: Life (4b)				
	3: LwPrp. (5b, 6b)				
	4: Legal Justice (7b, 9b)				
	5: Con-science (8b)				
Two	6: Fam. Affil. (1b, 4b, 6b)				
	7: Contract (2b, 3b)				
	8: Property (5b)				

Stage: Weightings

1: ____________________
2: ____________________
3: ____________________
4: ____________________
Total: ____________________
TR: __________ A: __________
TP: __________ B: __________

Computational Space

APPENDIX B

* Researcher-designed instrument: peer-oriented

* rating sheet

* Problem two of Form B from the SRM measurement instrument, reprinted with permission (see Appendix A face sheet). Presented for reference and comparison to the researcher-designed instrument, problem two, in this appendix.

SOCIAL REFLECTION QUESTIONNAIRE

Instructions

In this booklet are social problems with questions for you to answer. We are asking the question not just to find out your opinions about what should be done in the problems, but also to understand why you have those opinions. Please answer all the questions, especially the "why" questions. Feel free to use the backs of the pages to finish writing your answers if you need more space.

Age: ______________________________

Sex: (circle one): male/female

Date: ______________________________

Form A

PROBLEM ONE

Joe is a teenage boy. His best friend is dying of a particular cancer. Joe works part-time as a janitor at a research facility in his city. It has just been announced that a scientist there has developed a drug that could cure such cancer. So far, the drug has only been tested, successfully, on mice. It will not be available for use on humans for about one year.

Joe's sick friend, Dave, has been told that he has only two or three months to live. Dave has asked about this new drug but his doctors say that they cannot even get the drug as the scientist will not release any of it yet.

Joe has a problem. He wants to help his best friend and save his life. But, on the other hand, the only way he could get the drug he needs would be to break the law by stealing the drug.

What should Joe do?

should steal/should not steal/can't decide (circle one)

WHY?

Let's change things about the problem and see if you still have the opinion you circled above (should steal/should not steal/can't decide). Also, we want to find out about the things you think are important about this and other problems, especially WHY you think those things are important. Please try to help us understand your thinking by WRITING OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before". If you can explain better or use different words to show what you mean, that helps us even more. Please answer all the questions below, especially the WHY questions.

1. What if Joe's friend asks him to steal the drug for him? Should Joe:

   steal/should not steal/can't decide (circle one)

1a. How important is it for someone to do what your best friend asks, to save him by stealing, even when they are not sure whether that's the best thing to do?

   very important/important/not important? (circle one)

1b. WHY is that very important/important/not important (whichever one you circled)?

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2. What if Joe doesn't really love his friend? Should Joe:

   steal/should not steal/can't decide (circle one)

2a. How important is it for someone to steal to save a best friend, even if he doesn't love him?

   very important/important/not important (circle one)

2b. WHY is that very important/important/not important (whichever one you circled)?

3. What if the person dying isn't Joe's best friend but instead is just a friend (and the friend can get no one else to help him)? Should Joe:

steal/should not steal/can't decide (circle one)

3a. How important is it to do everything you can, even break the law by stealing, to save the life of a friend?

very important/important/not important (circle one)

3b. WHY is that very important/important/not important (whichever one you circled)?

4a. How about for a stranger? How important is it to do everything you can, even break the law, to save the life of a stranger?

very important/important/not important (circle one)

4b. WHY is that very important/important/not important (whichever one you circled)?

5. What if the scientist has said he'll make the drug available for testing on humans in about seven months? Joe's best friend can't wait that long. Should Joe:

steal/should not steal/can't decide (circle one)

5a. How important is it for people not to take things that belong to other people?

very important/important/not important (circle one)

5b. WHY is that very important/important/not important (whichever one you circled)?

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6a. How important is it for people to obey the law?

very important/important/not important (circle one)

6b. WHY is that very important/important/not important (whichever one you circled)?

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7. What if Joe does steal the drug? His best friend does get better, but in the meantime, the police charge Joe and take him to court. Should the judge:

jail Joe/let Joe go free/can't decide (circle one)

7a. How important is it for judges to go easy on people like Joe?

very important/important/not important (circle one)

7b. WHY is that very important/important/not important (whichever one you circled)?

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8. What if Joe tells the judge that he only did what his conscience told him to do? Should the judge:

jail Joe/let Joe go free/can't decide (circle one)

8a. How important is it for judges to go easy on lawbreakers who have acted out of conscience?

very important/important/not important (circle one)

9. What if Joe's friend wasn't going to die, his cancer was under control? What if Joe stole the drug only to try to guarantee the cancer wouldn't return? Should the judge:

jail Joe/let Joe go free/can't decide (circle one)

9a. How important is it for judges to send people who break the law to jail?

very important/important/not important (circle one)

9b. WHY is that very important/important/not important (whichever one you circled)?

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PROBLEM TWO

Judy is a thirteen-year-old girl. Her older sister who is in high school, is in charge of Judy and her fourteen-year-old brother while their parents are away on a trip. Judy's older sister promised her that she could go to a special rock concert that was coming to their town if she saved up from her babysitting and lunch money and had enough for the ticket to the concert. She managed to save up the eighteen dollars needed for the ticket plus another eight dollars. But then her sister changed her mind and told Judy that she had to use the money to help pay an unexpected household bill that was due immediately. Judy was disappointed and decided to go to the concert anyway. She bought a ticket and told her sister that she only had eight dollars saved. That Saturday she went to the concert and told her sister that she was spending the day with a friend. A week passed without her sister finding out. Then Judy told her brother, Brad, that she had gone to the concert and had lied to their older sister about it. Brad wonders whether to tell their sister was Judy did.

Brad has a problem. Brad knows that Judy would not want to be told on, and their sister did promise Judy she could go to the concert if she saved up the money. But, on the other hand, their sister would want to know where Judy had been and about her lying and disobeying.

What should Brad do?

should tell/should keep quiet/can't decide (circle one)

WHY?

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Let's change things about the problem and see if you still have the opinion you circled above (should tell/should keep quiet/can't decide). Also, we want to find out about the things you think are important in this and other problems, especially WHY you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINIONS--EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before". If you can explain better by using different words to show what you mean, that helps us even more. Please answer all the questions below, especially the WHY questions.

1. What if Judy hadn't earned the money? What if the older sister had simply given the money to Judy and promised Judy she could go to the concert--but now the sister wants the money back to help with paying the unexpected household bill? Brad should:

tell/keep quiet/can't decide (circle one)

1a. How important is it for an older sister/brother to keep their promises about letting their younger sister/brother keep money, even when the younger sister/brother never earned the money?

very important/important/not important (circle one)

1b. WHY is that very important/important/not important (whichever one you circled)?

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2a. Brad thinks about the fact that his sister is his friend. How important is it to keep a promise, if you can, to a friend?

very important/important/not important (circle one)

2b. WHY is that very important/important/not important (whichever one you circled)?

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3a. What about to anyone? How important is it to keep a promise, if you can, even to someone you hardly know?

very important/important/not important (circle one)

3b. WHY is that very important/important/not important (whichever one you circled)?

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4. What if Judy has earned a lot of money--so much money that she could have gone to the rock concert and still given her sister enough money to help pay the household bill? Should Brad:

tell/keep quiet/can't decide? (circle one)

4a. How important is it for someone to help sister/brothers, even when the sister/brother has broken a promise to them?

very important/important/not important (circle one)

4b. WHY is that very important/important/not important (whichever one you circled)?

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5. What if Judy did earn the money, but their sister did not promise that Judy could spend the money the way she wants? Should Brad:

tell/keep quiet/can't decide (circle one)

5a. How important is it to let children keep earned money--even when the children were not promised that they could spend the money the way they wish?

very important/important/not important (circle one)

5b. WHY is that very important/important/not important (whichever one you circled)?

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6. What if the older sister needs the money to pay for food for the family? Should Brad:

tell/keep quiet/can't decide (circle one)

6a. How important is it for children to do everything they can to help their family--even when it means that the children won't be able to do something they want to do?

very important/important/not important (circle one)

6b. WHY is that very important/important/not important (whichever one you circled)?

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PROTOCOL STAGE RATING

CODE #: ____________________
FORM: A/B (circle one)
RATER: ____________________
DATE: ____________________

MODAL: ____________________
SRMS: ____________________
GLOBAL: ____________________

Prob-lem	Norm (question)	Question Referent	Aspect Citation	Level	Comments (e.g., Orientation A or B)
One	1: Affil. (1b, 2b, 3b)				
	2: Life (4b)				
	3: LwPrp. (5b, 6b)				
	4: Legal Justice (7b, 9b)				
	5: Con-science (8b)				
Two	6: Fam. Affil. (1b, 4b, 6b)				
	7: Contract (2b, 3b)				
	8: Property (5b)				

Stage: Weightings

1: ____________________
2: ____________________
3: ____________________
4: ____________________
Total: ____________________
TR: __________ A: __________
TP: __________ B: __________

Computational Space

SRM measurement instrument Form B, problem two

Reprinted with permission. See appendix a, face sheet.

Form B

PROBLEM TWO

Judy is a twelve-year-old girl. Her mother promised her that she could go to a special rock concert coming to their town if she saved up from babysitting and lunch money so she would have enough money to buy a ticket to the concert. She managed to save up the five dollars the ticket cost plus another four dollars. But then her mother changed her mind and told Judy that she had to spend the money on new clothes for school. Judy was disappointed and decided to go to the concert anyway. She bought a ticket and told her mother that she had only been able to save four dollars. That Saturday she went to the performance and told her mother that she was spending the day with a friend. A week passed without her mother finding out. Then Judy told her older sister, Louise, that she had gone to the performance and had lied to their mother about it. Louise wonders whether to tell their mother what Judy did.

Louise has a problem. Louise knows that Judy doesn't want to be told on, and their mother did promise Judy she could go to the rock concert if she earned and save up the money. But, on the other hand, their mother would want to know about Judy's lying and disobeying.

What should Louise do?

should tell/should keep quiet/can't decide (circle one)

Why?

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Let's change things about the problem and see if you still have the opinion you circled above (should tell, should keep quiet, or can't decide). Also, we want to find out about the things you think are important in this and other problems, especially why you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINIONS--EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before." If you can explain better or use different words to show what you mean, that helps us even more. Please answer all the questions below, especially the "why" questions.

1. What if Judy hadn't earned the money? What if the mother had simply given the money to Judy and promised Judy she could use it to go to the concert--but now the mother wants the money back to help with buying Judy her school clothes? Should Louise:

   tell/keep quiet/can't decide (circle one)

1a. How important is it for parents to keep their promises about letting their children keep money, even when the children never earned the money?

   very important/important/not important (circle one)

1b. WHY is that very important/important/not important (whichever one you circled)?

2a. Louise thinks about the fact that her sister is her friend. How important is it to keep a promise, if you can, to a friend?

very important/important/not important (circle one)

2b. WHY is that very important/important/not important (whichever one you circled)?

3a. What about to anyone? How important is it to keep a promise, if you can, even to someone you hardly know?

very important/important/not important (circle one)

3b. WHY is that very important/important/not important (whichever one you circled)?

4. What if Judy has earned a lot of money--so much money that she could have gone to the rock concert and still given her mother enough money to help pay for new school clothes? Should Louise:

tell/keep quiet/can't decide (circle one)?

4a. How important is it for children to help their parents, even when their parents have broken a promise to them?

very important/important/not important (circle one)

4b. WHY is that very important/important/not important (whichever one you circled)?

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5. What if Judy did earn the money, but their mother did not promise that Judy could spend the money she earned the way she wants? Should Louise:

tell/keep quiet/can't decide (circle one)?

5a. How important is it for parents to let their children keep earned money--even when the children were not promised that they could spend the money the way they wish?

very important/important/not important (circle one)

5b. WHY is that very important/important/not important (whichever one you circled)?

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6. What if the mother needs the money to pay for food for the family? Should Louise:

tell/keep quiet/can't decide (circle one)?

6a. How important is it for children to do everything they can to help their parents--even when it means that the children won't get to do something they want to do?

very important/important/not important (circle one)

6b. WHY is that very important/important/not important (whichever one you circled)?

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APPENDIX C

*** An example of a completed rating form**

PROTOCOL STAGE RATING

CODE #:

FORM: A/B (circle one)

RATER:

DATE:

MODAL: 3

SRMS: 331.25

GLOBAL: 3 (4)

Problem	Norm (question)	Question Referent	Aspect Citation	Level	Comments (e.g., Orientation A or B)
One	1: Affil. (1b, 2b, 3b)	1b	3 a	3	
		2b		unscorable	
		3 b	3 2a	2/3	
	2: Life (4b)	4b	5 b	3/4	
	3: LwPrp. (5b, 6b)	5b	4b / 1a	3	
		6b	4b	3/4	
		6b	1c	2/3	
	4: Legal Justice (7b, 9b)	7b	4 b	3/4	
		9b	4 b	3/4	
	5: Con-science (8b)	8b	3 b	3	
Two	6: Fam. Affil. (1b, 4b, 6b)	1b	1a	3/4	
		4 b		unscorable	
		6 b	1a	3	
	7: Contract (2b, 3b)	2b	2c	3	
		3b	3c	2/3	
	8: Property (5b)	5b	3 b	3/4	

Stage: Weightings

1:

2:

3: 11 33

4: 5 20

Total: 16 53

TR: A:

TP: B:

Computational Space

$$16\overline{)53}\ \ 3.3125 \times 100 = 331.25$$